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ABSTRACT

This monograph is a report of the findings of a comprehensive survey to identify the functions, organizational structures, and numerical adequacies of central-office staffs, by size of school systems, in Virginia and to determine the relationships between certain characteristics of school systems and the numerical adequacies of central-office staffs. Data were collected from 30 small-size systems, 12 medium-sized systems, and 17 large-size systems. From the literature on school administration, eight principles of organization and seven major functions that must be performed by central-office staffs are presented. Typical staffing patterns of the small, medium, and large-size school systems studied are presented and compared with national data on the numerical adequacies of central-office staffs, for varying sizes of school systems. The final chapter presents the extent to which the essential functions of central-office staffs were performed, and the relationships between numerical adequacies and selected characteristics of the school systems studied. (Author/MLF)

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STAFFING THE CENTRAL-OFFICE:

Status and Implications

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FOREWORD

This monograph was produced with the cooperation of and with thanks to its authors. Thanks are also extended to Debbie Williams and Becky Zellers for their typing expertise and to Jim Beckner and Jack Gold for their assistance in proofreading. It was published as a service to the public schools of the the Commonwealth of Virginia by the Virginia Association of School Executives (VASE). Copies were distributed to VASE members as part of their membership.

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CHAPTER I

INTRODUCTION

The evolution of central-office administration in public education began prior to the mid-nineteenth century with the appointment of the first superintendents of schools. Because the administrative duties of members of lay school committees had become onerous, professional assistance was sought. These early superintendents of schools, however, were employed primarily for the supervision of instruction while the lay school committees or their officers retained the other administrative functions related to operating public school programs.[1]

Gradually, the responsibilities of superintendents of schools evolved to include all aspects of administering and supervising school systems. Between 1910 and 1945, the superintendency was influenced greatly by the proponents of "scientific management." Because of this influence, superintendents of schools were viewed during this period as businessmen whose primary function was the efficient operation of the public schools.[2] Often, central-office staffs were expanded in search of efficiency.

Following World War II, the roles of superintendents of schools and their central-office staffs were influenced dramatically by many economic, sociological, political, and educational phenomena of that period. The United States was experiencing a shift from a basically rural to a basically urban-suburban life style, and a dramatic population explosion including significant annual growth in the school-age population was occurring. During 1954 the Supreme Court of the United States declared the maintenance of racially-segregated schools to be unconstitutional. New responsibilities and attendant problems were thrust upon superintendents of schools and school boards because of this decision. Because of the launching of Sputnik by the Soviets, a resulting belief among many perons in the United States that the scientific-technical education of the period was unsatisfactory, and the annually increasing cost for providing public education, public schools were criticized severely and were scrutinized closely during the late 1950s. The conditions then existing resulted in the National Defense Education Act of 1958, a variety of new educational programs, and numerous curricula reforms. During the 1960s, federal legislation was enacted in which funds for the improvement of elementary and secondary education were provided and in which the development of programs for improving the education of economically and culturally-deprived groups through compensatory education was encouraged. As a by-product of federal spending for education, a movement for accountability evolved in attempts to insure that taxpayers were receiving educational services in proportion to financial resources allocated for them. During this period, unions and educational associations became active in efforts to improve wages, fringe benefits, and working conditions through

negotiations, bargaining, and other procedures. The civil-rights movement of students with attendant demonstrations and subsequent decisions of the Supreme Court of the United States in which the Bill of Rights was made applicable to minors resulted in new relationships between students and educational administrators. In addition to the impact of all these events were increased expectations for improved and additional services from the public schools. To cite a few examples, programs were demanded to meet the special needs of pre-school children, unemployed or underemployed persons, high school dropouts, senior citizens, and handicapped children and youth. The demands made upon public schools had an enormous impact on the growth of public school administration. Morphet, Johns, and Reller commented as follows on substantial increases in the numbers of persons employed in public school administration:

> The growth in responsibility and the larger size of local school systems as a result of the elimination of many of the small districts, the growth in population, the changing concept of what constitutes an adequate education, the increasing aspirations of the people regarding education, and the growing relations with the state and federal governments--all have led to substantial increases in administrative staff.[3]

Superintendents of schools no longer could perform efficiently and effectively without additional assistance of specialized staff members at the central-office level. The authors of a publication for the American Association of School Administrators (AASA) recognized the plight of superintendents of schools by stating that administration and supervision of the public schools had become so complex that superintendents had to rely on a variety of specialists if they were to provide leadership.[4] Increasingly, superintendents of schools concerned themselves with organizing and coordinating administrative teams as one method for achieving the goals of their school systems.[5] A number of reasons were cited for increases in sizes of central-office staffs in the previously mentioned AASA publication:

1. improved and expanded educational services for all children and youth;
2. increases in federal funding for compensatory educational programs;
3. expanded enrollments in the schools; and,
4. reorganizations of school districts.[6]

Predictions were made as early as 1976 that during the 1970s, even with decreases in the school-age population, additional central-office personnel would be necessary and would be employed because of increased federal funding, a need for research upon which to base decision-making, demands of citizens for improved and expanded educational programs, and curricula change and innovation.[7]

Although expanded central-office staffs appeared to be needed, there was less than unanimity of opinion among superintendents, other educators, school board members, and citizens about the numbers of positions needed and the services that should be provided. For example, as early as 1968, Carter stated that, "there are few areas of greater disagreement between a superintendent and board members than the number of personnel required for carrying on central-office operations."[8] Additionally, there appeared to be no single, recognized formula or model which could be used to determine the number of personnel needed on central-office staffs or the functions which should be performed.[9] Most central-office staff positions appeared to be determined by the use of statistics from national studies, state and regional accrediting standards, and perceived local need.

Educators, however, through many intermittent efforts since the evolution of central-office staffs in public education attempted to determine staffing patterns, the numbers and kinds of positions needed, and the functions that should be performed. For example, during the period 1910 to 1935, an estimated 2,889 school surveys were published and additional hundreds were conducted which did not result in published reports.[10] The findings of these early surveys were used to establish guidelines for administrative staffing. Efforts based on the findings of these surveys were made to identify and to define principles of management and to determine the numbers of persons needed to administer school districts of diverse sizes and organizational structures.

During the 1950s, several studies related to administrative practices in public school systems were conducted. A study of city school superintendents was sponsored by the AASA.[11] The staffing ratios developed in this study were made available to local superintendents of schools and school boards for use as central-office staffing guides. A comprehensive study of administrative staffing practices in the schools of New York state was completed during the late 1950s. Because of the thoroughness of this study, it was used extensively as source material during the period for which the data were relevant. The study was designed to answer the following questions: (1) How many administrators are needed to administer a school system, (2) Which types of administrators are needed, and (3) How should they be organized?[12]

Lynn, using the above mentioned study for background material, investigated twelve Pennsylvania school districts in an attempt to develop "criteria or guidelines for determining administrative and supervisory personnel needed to operate a particular school system."[13] His study was designed to answer the following questions: (1) What kinds of administrative and supervisory personnel and supervisors are needed, (2) How many administrators and supervisors are needed, and (3) How can administrative and supervisory personnel be organized to best advantage?[14]

The passage of the Pennsylvania School Reorganization Act during 1963 prompted a comprehensive study of school district staffing in that state.[15] Castetter, Griffiths, and Felker identified and described staffing practices in Pennsylvania and by examining these practices explained the reasons for the then existing staffing patterns.[16]

During the 1960s, many studies of administrative staffing were conducted and the results were published in professional journals and periodicals. Additionally, the numerical adequacies and organizational structures of central-office staffs were topics for a number of dissertations during that period. Largely descriptive and normative, these studies, some national in scope, were useful during that period for comparing staffing ratios and for identifying staffing trends.

During the early 1970s, several surveys were made for the Educational Research Service, a Washington-based, independent research organization sponsored by the American Association of School Administrators, the National Association of Secondary School Principals, the National Association of Elementary School Principals, and other national educational organizations. Findings of several independent staffing surveys were synthesized in a resulting publication of that organization.[17]

Several facts appear to be true about staffing studies. First, the sizes of school districts, the mobility of population, the increasing complexity of life, the varying demands made upon public school systems, the economic conditions of varying localities and times, and other variables that affect central-office staffing of school systems perhaps are too numerous, diverse, and subtle to determine staffing ratios or patterns that would be useful during long periods of time. Second, such studies for the most part must be normative and cannot be useful for either long periods of time or made applicable to dissimilar locations. Third, in making such studies, researchers include, delete, and modify types of personnel to be included so that comparisons and syntheses of the results of studies are difficult.

For the reasons cited above, during the academic year 1975-76, a comprehensive survey was initiated in the Department of Administration and Supervision of the Curry Memorial School of Education at the University of Virginia to identify the functions, organizational structures, and numerical adequacies of central-office staffs, by size of school systems, in the Commonwealth of Virginia and to determine the relationships between certain characteristics of school systems and the numerical adequacies of central-office staffs. Three dissertations were completed as a result of this effort.[18] This monograph is a report of the findings in those studies.

PURPOSE OF THE SURVEY

Perhaps the purposes of the survey which is reported in this monograph best may be explicated by the use of a series of sequential questions which follow:

1. What are the typical organizational patterns of central-office staffing used in small, medium, and large-size school systems in the Commonwealth of Virginia?

2. What are the numerical adequacies (numbers of persons employed per one-thousand pupil membership) of central-office staffs by administrative functions performed in small, medium, and large-size school systems in the Commonwealth of Virginia and how do these compare with available national data?

3. To what extent are the traditional principles of organization utilized in structuring central-office staffs in small, medium, and large-size school systems in the Commonwealth of Virginia?

4. To what extent are the traditional functions of central-office staffs performed in the small, medium, and large-size school systems in the Commonwealth of Virginia?

5. Are there relationships between selected characteristics of school systems and numerical adequacies of central-office staffs in small, medium, and large-size school systems in the Commonwealth of Virginia?

To be specific, Question Five above was divided into seven subquestions which follow:

1. Are there relationships between the numbers of traditional principles of organization utilized and the numerical adequacies of central-office staffs in small, medium, and large-size school systems in the Commonwealth of Virginia?

2. Are there relationships between the numbers of traditional functions performed by central-office staffs and the numerical adequacies of central-office staffs in small, medium, and large-size school systems in the Commonwealth of Virginia?

3. Are there relationships between the average daily pupil memberships and the numerical adequacies of central-office staffs in small, medium, and large-size school systems in the Commonwealth of Virginia?

4. Are there relationships between the numbers of teachers employed and the numerical adequacies of central-office staffs in small, medium, and large-size school systems in the Commonwealth of Virginia?

5. Are there relationships between the numbers of schools and the numerical adequacies of central-office staffs in small, medium, and large-size school systems in the Commonwealth of Virginia?

6. Are there relationships between the tax base per pupil and the numerical adequacies of central-office staffs in small, medium, and large-size school systems in the Commonwealth of Virginia?

7. Are there relationships between annual per-pupil expenditures and numerical adequacies of central-office staffs in small, medium, and large-size school systems in the Commonwealth of Virginia?

JUSTIFICATION FOR AND POSSIBLE USES OF THE SURVEY

Because school systems are supported by public funds and do not have the pressure of fiscal profit and loss data to inspire cost consciousness

and efficiency, many persons view school systems as service organizations whose administrative and supervisory personnel increase rapidly, disproportionally, and at times unreasonably. Such views often are based upon incomplete analyses, isolated instances, sometimes "tunnel vision," and often mere emotions rather than data-based facts. Unless data, even if normatively-derived, are available, however, one cannot rebut effectively erroneous observations which are made. It was believed that the principles of organization and the functions of central-office staffs identified in the survey and reported in this monograph would be helpful in developing an understanding of the essential characteristics of an efficient and effective central-office staff in the local school systems of the Commonwealth of Virginia.

It was believed further that the identification of typical organizational patterns of school systems of varying sizes, based on accepted and traditional principles of organization and essential functions to be performed at a central-office level, would be useful in varying school systems as bases for comparing local organizational structures. It was believed that a central-office staffing pattern based on sound principles of organization would foster effectiveness and efficiency. Additionally, it was believed that the staffing ratios (numerical adequacies) of central-office staffs, by size of school system, and by functions to be performed, would be useful for comparative purposes in evaluating current numbers of personnel employed or considering additions to central-office staffs.

The data included in this monograph were not available from any existing source and were needed to make staffing studies in the Commonwealth of Virginia. As a consequence, the survey was conducted and the results are reported in this monograph for whatever profitable use can be made of them.

PROCEDURES USED IN THE SURVEY

As a preliminary step in developing a rationale for the survey, the classical literature on organizational theory was searched thoroughly to derive the essential principles of organization that should be observed in structuring central-office staffs of school systems. Also, the literature of school administration was surveyed thoroughly to identify those particular functions that must be performed by any effective and efficient central-office staff. Based on these two components, organizational charts were developed as bases for comparing data that were obtained in the survey.

Because it was intended that the results of the survey would be applicable to the entire Commonwealth of Virginia, accepted statistical procedures were used to select the sample that would be included in the survey. The School systems in the Commonwealth were divided into three categories: small-size--average-daily membership not exceeding six thousand pupils, medium-size--from 6,001 to twelve thousand pupils in average daily membership,

and large-size--those systems exceeding twelve thousand pupils in average daily membership. In the first two categories, an approximate forty-percent sample was selected by use of a stratified-random sampling technique. Thirty small-size systems and twelve medium-sized systems were included in the sample. Because there were only seventeen large-size systems, the entire population was included in the sample.

Data were collected by the use of three sources. First, the superintendent of each school system included in the study was interviewed. The interview was used to supplement, verify, and explicate data obtained. Each superintendent was asked to provide the following information:

1. Descriptive information pertinent to the school system such as the number of students, teachers, schools, the tax base of the system, and the amount of per-pupil expenditure;
2. The total number of central-office administrators and the names, titles, and positions of personnel;
3. A brief explanation of the line-staff relationships of both central-office personnel and school-unit administrators; and,
4. The extent of utilization of formal organizational structures and job descriptions.

Second, a Central-Office Organizational Study Questionnaire (COOSQ) was developed and used. All central-office administrators and supervisors were requested to supply the following information:

1. The name, title, and department of the person responding;
2. The major function or area of responsibility assigned to the respondent;
3. The name and title of the respondent's immediate superior;
4. The names and titles of the persons reporting directly to the respondent; and,
5. The specific tasks or duties which the respondent was expected to perform.

Third, information about the organization of each school system was made available in the school board policy manual which was obtained from each school system.

Descriptive analysis was used in determining the organization, functions, and principles of organization utilized in the various school systems. Data gathered by use of the interviews, questionnaires, and policy manuals were used to prepare organizational charts for each school system in the sample. Through the use of the organizational charts and other data collected, it was possible to determine the number of principles of organization utilized, the functions performed by each central-office staff, and the number of personnel employed by function. Additionally, two statistical procedures were used to

determine relationships. They were coefficients of correlation and multiple regression analysis.

ORGANIZATION OF THE MONOGRAPH

In Chapter II, which follows, a brief literature survey of the development of principles of organization is presented, and eight principles which were identified from the literature are defined and explicated briefly. When considering the structuring of the staff of an organization or developing an organizational pattern, each of these principles must be given due consideration. From the literature on school administration, seven major functions that must be performed by central-office staffs were identified. These are presented and are explicated briefly in Chapter III. Perhaps other taxonomies could be used in stating principles of organization and functions of central-office staffs. An attempt was made, however, to treat the topics at a level of generality which would permit them to be coordinated, to be generally usable, and so that minor functions and principles may be subsumed in the major categories.

Based on the principles developed in Chapter II and the functions presented in Chapter III, typical staffing patterns of the small, medium, and large-size school systems studied in the survey are presented in Chapter IV. These may be used to make comparisons of staffing patterns in school systems of comparable sizes. Question One in the section, Purposes of the Survey, is answered in this chapter.

In Chapter V, Question Two stated for the survey is answered. National data on the numerical adequacies of central-office staffs, by each of the seven functions, for varying sizes of school systems, were synthesized and are presented. Comparable data obtained from the school systems studied are presented. Comparisons are made between national data and those collected in the study. Two cautions are urged in interpreting the national data. First, the data are somewhat dated and second, in synthesizing the data discrepancies were often observed with respect to inclusion of certain types of employees (for example, classified or certificated). The data obtained in the survey, however, are accurate and include only certificated personnel and not clerical or other classified employees. These staffing ratios may be used with assurance in making comparisons among school systems within the Commonwealth of Virginia.

In Chapter VI, Questions Three through Five (including the seven subquestions) are answered. The extent to which the essential functions of central-office staffs were performed, and the relationships between numerical adequacies and selected characteristics of the school systems studied are presented. These data may be of particular use to those who pursue further study in central-office staffing of school systems.

FOOTNOTES

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2. Ibid., p. 31.

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7. William N. Starekel, "How District Staffing Ratios Compare," Nation's Schools LXXV (May, 1965), p. 48.

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14. Ibid., p. 4.

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16. Ibid., p. 14.

17. Suzanne K. Stemnock, Structuring the Administrative Organization of Local School Systems (Washington, D.C.: Educational Research Service, 1970), p. 1.

18. John C. Capehart, "The Organization, Function, and Adequacies of Central-Office Staffs of Small-Size School Systems" (Unpublished Doctor's dissertation, University of Virginia, 1977); George E. Nolley, "The Organization, Functions, and Adequacies of Central-Office Staffs of Medium-Size School Systems" (Unpublished Doctor's dissertation, University of Virginia, 1975); Fred G. Benham, "The Organization, Functions, and Adequacies of Large-Size School Systems" (Unpublished Doctor's dissertation, University of Virginia, 1977).

CHAPTER II

IDENTIFIED AND ACCEPTED PRINCIPLES OF ORGANIZATION

During the nineteenth century, executives of business organizations and administrators of public-service agencies were dependent on military experiences in developing patterns of organization. Some authorities were critical of these early business practices and began developing a body of knowledge designed to satisfy the organizational and managerial needs of non-military institutions.[1] During the twentieth century, organizational administration became increasingly scientific.

The design of modern organizations evolved from the classical organizational structures of the early twentieth century. With modifications, the principles utilized in forming the classical organizational structures could be used in modern organizational designs. Principles, by definition, are basic and fundamental and have a quality of timelessness.

In the first section of this chapter, a brief review of the historical development of principles of organization is presented. In the second section eight principles of organization are identified, explicated briefly, and documented. The last section is a summary of the chapter.

HISTORICAL DEVELOPMENT OF PRINCIPLES OF ORGANIZATION

The classical management principles of organizational structure were presented first by Fayol. These principles were fundamental and were capable of application in a wide range of situations and circumstances. Fayol noted that "principles are flexible and capable of adaptation to every need."[2] Flexibility was necessary, for principles had to be applied in a variety of situations in a changing climate of organizational designs. Fayol stated: "Seldom do we have to apply the same principle twice in identical situations."[3] Fayol listed as follows the principles of organization which were most frequently applied:

1. Division of work;
2. Authority;
3. Discipline;
4. Unity of command;
5. Unity of direction;
6. Subordination of individual interests to the general interest;
7. Renumeration;
8. Centralization;
9. Scalar chain (line of authority);
10. Order;
11. Equity;
12. Stability of tenure of personnel;

13. Initiative; and,
14. Esprit de corps.[4]

Fayol's list of principles was not all inclusive, nor was it intended to be.[5] Others experienced in management, developed other principles, often using the presentation of Fayol as a reference. Many of the original principles continue to appear in the writings of management authorities even during the 1970s.

During 1937, Gulick explained several universal principles of management. These principles were as follows:

1. Division of labor;
2. Departmentalization on the basis of purpose, process, clientele or place;
3. Coordination by hierarchy;
4. Coordination by ideas;
5. Coordination by committees;
6. Decentralization;
7. Unity of command;
8. Staff and line;
9. Delegation; and,
10. Span of control.[6]

Varied use of principles of management was a reason for authors to list a variety of principles. During the 1960s, Dale[7] found the most commonly mentioned principles of management to be: objectives, specialization, coordination, authority, and responsibility. According to Dale, an expanded list of principles would include: efficiency, delegation, unity of command, span of control, short chain of command, and balance.[8]

Other authorities in management developed personalized lists of management principles. Morgan[9] listed authority, unity of command, span of control, homogeneous assignments, and delegation of authority. Carzo and Yanouzas[10] listed specialization and departmentation, unity of command, span of control, and allocation of authority. According to a field manual of the Department of the Army, a commander should utilize principles of staff organization by doing the following:

1. Describing assigned responsibilities clearly;
2. Delegating decision-making authority to officers at appropriate action levels commensurate with their assigned responsibility;
3. Grouping related activities to save time and work; and,
4. Establishing an effective span of control.[11]

After World War II, authorities in the field of educational administration began to examine the classical management principles of organization and to apply these principles to school administration as well as to business management.[12] The influences of business management affected educational practices, particularly during the period 1910-1945, when business concepts and practices were utilized extensively in education.[13]

Educational authorities modified the classic management principles of organization so that appropriate application to educational organizations was feasible. Morphet, Johns, and Reller stated that the effectiveness of an organization is enhanced by the following:

1. Having a single executive head;
2. Clearly defining organizational goals;
3. Clearly delineating individual responsibilities;
4. Delegating authority and responsibility;
5. Supervising appropriate numbers of people;
6. Standardizing procedures;
7. Making provisions for assessment of results; and,
8. Making provisions for innovation and change.[14]

Jenson and Clark drew upon their educational backgrounds and suggested the following rules of organization:

1. Work should be organized by function;
2. Unity of direction or unity of command should exist;
3. Staff, auxiliary, and line activities should be separated;
4. Organization should be on a hierarchial basis;
5. Span of control should be appropriate;
6. Organization should be a means to an end; and,
7. The particular situation should determine the organization.[15]

Griffiths, Clark, Wynn, and Iannacone were of the opinion that an effective educational organization is based on certain concepts. These concepts are: a broad span of control; a flat organization; the building unit as a basis of organization; the specialist as a staff officer; a decentralized organization; the purpose of the institution as the criterion for organization; and unitary control.[16]

Knezevich acknowledged that principles of management are flexible and need to change with the circumstances.[17] The list of management principles, as perceived by Knezevich, is as follows:

1. Specialization consists of subdividing work and grouping similar functions;
2. The hierarchy determines the levels of authority and chain of command;
3. Unity of command necessitates one chief executive;

4. Delegation of authority is to accompany assignment of responsibilities;

5. Authority and technical power are inherent in certain individuals;

6. Span of control is related to the number of subordinates effectively supervised; and,

7. Layering refers to the number of hierarchial levels in an organization.[18]

Spencer, after examining the opinions of authorities on organizational theory, identified a set of organizational concepts. This set of concepts included: delegation of authority and responsibility; clear definition of function; span of control; unity of management; unity of direction; democratic methods; and the use of line and staff officers.[19]

The use of principles of organization is not universal. Stemnock, noted that there are "few principles to which everyone will agree."[20] After evaluating the classical principles stated by Fayol[21] and modified by Dale,[22] Stemnock stated that the following principles are appropriate to educational organization: (1) each organization must have an objective or objectives; (2) each section of an organization should have its own objectives; (3) there should be coordination of effort; (4) the work assigned to each person and each unit is divided and grouped so as to encompass a single function; (5) each group of activities having a common objective should report to one head; (6) unity of command; (7) delegation of authority and responsibility; (8) span of control; (9) short chain of command; and (10) balance.[23]

Nolley[24] refined the list developed by Stemnock and combined the management principles under eight headings. These eight headings were: objectives, coordination, specialization, unity of command, authority and responsibility, span of control, chain of command, and balance.[25]

It was determined from a review of the works of authorities that there are certain classical management principles which can be utilized appropriately in the organizational design of central-office staffs in diverse school districts. The principles deemed appropriate to the organizational design of central-office staffs in the various school districts are: objectives, specialization, coordination, unity of command, delegation of authority and responsibility, span of control, short chain of command, and balance.

EIGHT ESSENTIAL PRINCIPLES OF ORGANIZATION

In the paragraphs which follow the eight principles of organization identified above will be defined briefly. Additionally, each will be explained to some extent for understanding and will be documented.

Objectives

Any organizational structure has only one major purpose: to order an organization in terms of division of labor and allocation of responsibility and authority so that the purposes of an organization may be achieved efficiently and effectively. There is no doubt about the overall purpose or objective of the central-office staff of a school system. That purpose or objective is to administer and supervise the school system so that accepted outcomes of education are maximized for the children, youth, and other clients served by the system. Each section or unit, however, of the total central-office organization must be organized so that two things are clear: (1) What are the major purposes or objectives of each section or unit? and (2) In what ways are these related to the overall purpose or objective?

There is always a basic purpose or reason for forming any organization. The original objective or purpose of an organization can be overlooked if survival of the organization becomes a primary objective of organizational members. Every organization needs clearly defined objectives. Individuals within an organization need objectives which are "logically related to the organizational goal so that if each job holder meets his goal the goals of the entire organization will be met."[26]

Stemnock was of the opinion that organizational design is created to facilitate the efficient and effective achievement of purposes and goals of an organization.[27] Each member of an organization has to know how his objectives contribute to the attainment of the overall organizational goals.[28]

Understanding organizational goals and the part each section, or person, has in reaching these goals develops a "desire and a will to work together."[29] Gulick noted a need to identify the role of each position in the attainment of organizational goals.[30] Barnard stated that for a person to accept an authoritative communication it is necessary that "he believes that it is not inconsistent with the purpose of the organization."[31]

An individual in an organization has to understand the role or position which he occupies and how that position assists in the achievement of organizational goals. In a central-office of a school district, the following documents may be used to furnish personnel with information regarding organizational and positional goals:

1. A clean statement of the purposes to be served by the individual school system. . . .
2. Some logical analysis and description of the functions to be performed by the administration to serve the purposes of the school system. . . .
3. Job descriptions for various positions on the administrative team should be drawn up that encompass the tasks to be performed.[32]

Specialization

Most authorities in management list specialization as a major principle for structuring organizations. The term means that the work to be done is divided so that an employee can specialize in-depth in a particular aspect of the total job that must be accomplished. This does not mean that the work of each unit or that of individuals within each unit is so specialized that tasks become intangible or meaningless; however, it does mean that similar functions within an organization are given logical placement so that they may be coordinated effectively.

A division of labor was advocated by early authorities and continues to be prominent in management philosophy. Fayol commented: "Specialization belongs to the natural order."[33] The division of labor has as its object the production "of more and better work with the same effort."[34] The necessity exists for compatible grouping of assigned tasks. Once labor is divided and specialization is begun, it is necessary to group related tasks into a homogeneous arrangement.

Gulick was of the opinion that there are four bases for assigning work groups. The bases for assignment are: (1) purpose of the activity, (2) process or type of the activity, (3) person or thing dealt with, and (4) the place of the activity.[35] Carzo and Yanouzas used the terms purpose, function, place, and clientele to describe the bases for grouping activities.[36]

Knezevich listed seven bases for grouping specialties. These seven bases were: (1) products or services, (2) location, (3) time, (4) customers or clientele, (5) processes to be used, (6) functions, and (7) subject matter.[37] The bases for departmentalization are applicable in a variety of circumstances. Several of these bases have implications for many school districts. Functional organization, according to Knezevich, includes grouping activities such as "administration, supervision, public relations, counseling, teaching, and research."[38]

Specialization in large-size school systems reaches a high level of sophistication. Assignment to one particular area of specialization usually is realistic. Dale noted that "so far as possible, the work of each person should be confined to a single function."[39] Even in large systems, assignment to a single function is not always possible. Dale was of the opinion that related functions should be "grouped together under a common superior."[40]

The superior could be a special administrator or a general administrator. The degree of specialization within an organization is likely to be a function of the size of a school system and the sophistication of an organization.[41]

Coordination

It is necessary within any organization that controls be available to prevent units within an organization from duplicating work efforts and/or working at cross purposes with other units. Also, the focus and work of each unit must be synchromeshed into a holistic effort toward total organizational goals. The work within each unit of an organizational unit must be balanced so that the work of the entire organization may be achieved efficiently and effectively. Further, coordination means that each unit within an organization must understand the work of all other units and cooperate with them to avoid imbalance in authority and overlapping of responsibility.

Coordination was cited by a number of authorities as a principle of organization. It is a pervasive characteristic of organization, and is similar in scope to authority, communication, and decision-making. Because specialization and departmentalization are basic to organizational design, it is necessary that controls be available to prevent units in a total organization from duplicating efforts and working at cross purposes with others. Grieder, Pierce, and Jordan stated the following:

> Unless there is coordination, a satisfactory arrangement of persons and other resources for achieving the purposes of the educational enterprise is scarcely possible. Coordination is simply the arrangement of personnel so that each person can make his most effective contribution to the school system.[42]

Cooperative efforts by all units within an organization are necessary to accomplish organizational goals. Understanding organizational goals aids coordination. Stemnock stated the following:

> The goal(s) of each unit and the various units must be balanced as needed to achieve the goal(s) of the organization as a whole. Each unit should understand the goals and work of other units and cooperate with them to avoid duplication of effort.[43]

Learned and Sproat were of the opinion that coordination occurs in three ways: by hierarchy, by ideas, and by committees.[44] According to Learned and Sproat, coordination by hierarchy is traditional; coordination by ideas is humanistic; and, coordination by committees is irresponsible. Committees are often appointed because individuals "seek escape from responsibility."[45] Coordination by hierarchy appears to be a practical method.

Unity of Command

Unity of command means that an employee receives "orders" from only one person and is "accountable to" only one superior. Ambivalence in performance is likely to occur if an incumbent in a position reports to superiors

in two or more different departments. Often, in educational organizations, an employee is responsible for more than one function. For example, one may have the responsibility for inservice education and the employment of certificated personnel. Because these responsibilities involve both personnel management and instruction, one with these responsibilities would not be jointly responsible to the personnel department or unit and to the instructional department or unit. He would be assigned to only one department or unit although he may have multiple responsibilities. Fayol stated: "For any action whatsoever, an employee should receive orders from one superior only."[46] No man can serve two masters. Organizational efficiency is enhanced when an accepted leader plans or directs group activities.[47]

Fayol was of the opinion that violating unity of command would create a situation in which "authority is undermined, discipline is in jeopardy, order disturbed, and stability threatened."[48] Stemnock stated that in a school system "an adminstrator should not have one or more jobs for which he must report to different people."[49]

Knezevich was of the opinion that one chief executive must have ultimate responsibility for an organization. In a school system, the chief executive reports to the school board. Other persons report to one superior. Knezevich explained as follows a need for a reporting procedure:

> Each individual in the system, in turn, reports primarily to one executive or superior. If an administrator were responsible to more than one superior, he would have a difficult time choosing whose orders to follow.[50]

In actuality, a possibility exists for more than one person to oversee an employee. Technical supervision is practical and often occurs, as with teachers and subject matter supervisors. It is necessary that an employee who receives technical supervision recognize and distinguish technical supervision from line supervision. Authority and responsibility are associated with line supervision.[51] On the other hand, authority and responsibility are not associated with technical supervision.

Delegation of Authority and Responsibility

Most authorities in management believe that in delegating tasks to be performed, authority should be commensurate with responsibility. In any organizational structure, both authority and responsibility must be delegated if one to whom they are delegated is to be accountable. Authority without responsibility and responsibility without authority are untenable positions; however, a superior cannot delegate completely to a subordinate those responsibilities for which he must be accountable. He must delegate only that amount of authority and responsibility to a subordinate that would permit the subordinate to achieve his

functions and to allow for creativity on his part in doing so. Further, decisions within an organization should be made at the lowest possible level in a hierarchy. Accordingly, there must be a clear chain of command for decisions that must be referred upward in an organization.

When work is divided, responsibility for accomplishing work is part of the task. It is necessary to delegate adequate authority so that an employee has a reasonable chance of task completion. Stemnock stated the following:

> An individual should be delegated adequate authority to carry out his responsibilities. And the converse, authority should not be delegated without specific responsibilities.[52]

Carzo and Yanouzas were of the opinion that when responsibility for a task is assigned, the "authority to perform activities required by the assigned work" also is allocated.[53] Dale was of the opinion that "authority should be commensurate with responsibility."[54] Authority means official permission to use the resources of an organization.[55]

Delegation of authority and responsibility is necessary, because it is impossible for a chief executive in a large organization to develop the technical expertise, informational inputs, and assessments necessary to make complex decisions in all aspects of organizational operations. Executives with direct responsibilities at low levels in an organization encounter similar difficulties. These line administrators need assistance from staff specialists who can provide technical guidance and expertise.

Military personnel use line and staff relationships to overcome organizational limitations imposed by logistics and other problems. Carzo and Yanouzas explained line and staff relationships in the following manner:

> A superior who exercises direct command over a subordinate has line authority. A person occupying a position with staff authority does not command others but rather his responsibility is discharged by providing information, advice, and recommendations.[56]

Although staff administrators do not command, Knezevich recognized that there is a "technical authority which adheres to the individual because of his recognized expertness in a given field."[57] Technical expertise has an influence on line personnel.

In large-size school districts, staff administrators exercise line control over personnel assigned to subordinate positions in the staff division. Staff administrators still are identified as special administrators.

The central-office staffs in large-size school systems consist of line administrators (general administrators) and staff administrators (special administrators).[58] Both special and general administrators are necessary for effective operation at a central-office level.

Span of Control

Span of control means that one superior can supervise effectively only a limited number of subordinates. In other words, only a limited number of subordinates can report effectively to one superior. This number is usually given in a range from five to eight persons in the classical literature of management. This principle is not rigid, however, in terms of number of persons. There is, perhaps, a limit, but many variables intervene. For example, the number of persons that may be supervised by one superior depends on the autonomy of a subordinate, the level of his expertise, and the extent to which a proper balance between authority and responsibility for decision-making has been maintained in delegating his functions.

The principle, span of control, is related to the horizontal dimension of an organizational structure. Span of control has been called the "span of supervision" or the "span of management."[59] McFarland defined span of control as "the number of subordinates that an executive supervises."[60] This definition is accepted generally by authorities.

Span of control has limitations according to some authorities. Citing the works of Hamilton, Fayol, Urwick, and Graicunas, Carzo and Yanouzas stated that "man's available energy, knowledge, and abilities are confined to narrow limits; he is unable to supervise successfully the work of more than a few subordinates."[61]

In practice, span of control for administrators is varied. Stemnock,[62] Massie,[63] and Urwick[64] were of the opinion that a span of control of from four to six subordinates is reasonable. Dale stated: "No superior should have more than six immediate subordinates whose work is interrelated."[65] Researchers in an American Management Association survey indicated extended spans of control. More than fifty percent of the chief executives of large companies had nine or more subordinates who reported directly to them.[66] In a survey of large-size school districts, Spencer[67] found that superintendents of schools were working with spans of control that ranged from five to twenty-three subordinates. The mean span of control for superintendents of large-size school districts was between nine and ten subordinates.[68]

Having eight subordinates report to one superior appears to be a reasonable span of control. The actual number of subordinates an executive can supervise depends upon a number of factors. Morgan listed the following factors: the manager's ability, the kind of work, the work the manager must do himself, training requirements, and physical location.[69]

Other authorities enumerated a variety of items which affect span of control. Hodge and Johnson developed a list which follows:

1. Training possessed by subordinates;
2. Number of relationships requiring supervisory attendance;
3. Business dynamics and the complexity of policy formulation;
4. Degree to which objective standards are applied;
5. Effectiveness of communication techniques; and,
6. Level of management ability.[70]

Span of control is one of the basic principles that affects organizational design. A broad span of control has a tendency to level the pyramidal structure causing a "flat" organization.[71] Decision-making is likely to be delegated to subordinates; this causes increased individual responsibility and authority close to the point of implementation. Communication on a horizontal plane is likely to increase.

Short Chain of Command

When charted an organizational structure is similar in shape to that of a pyramid. There must be ultimate authority and responsibility until the lowest level is reached in a hierarchy. A short chain of command means that there are as few levels of authority as possible to achieve the central purpose of an organization. Those organizations with an inordinate number of levels of authority and responsibility are referred to as "tall organizations;" those with as few as possible are "flat organizations." The principle means that in structuring an organization as few levels as possible should exist. There is a relationship between span of control, there is usually a long chain of command; in those with a long span of control, there is usually a short chain of command. The optimum arrangement is to keep a balance between the two concepts.

The chain of command concept was derived from the scalar-chain concept described by Fayol. Fayol defined scalar-chain as "the chain of superiors ranging from the ultimate authority to the lowest ranks."[72] Authority levels are indicated by the use of the chain-of-command concept. The channels of communication are considered to be congruent with the chain of command.

The number of levels in an organizational hierarchy is a consideration in organizational design. Cordiner, a General Electric Company executive, favored limiting the number of authority levels in a company hierarchy. Cordiner explained this organizational concept as follows:

> There is still much streamlining to do in the organization. We must end up with no more than seven layers of management--a maximum of seven layers of management between the man in the shop, or the clerical worker, and the President's office.[73]

Stemnock believed that a short chain of command is preferred because "the communication distance between the highest and lowest levels of authority is reduced."[74] Dale explained the preference for a short chain of command in the following statement:

> There should be as few levels of supervision between the supreme authority in the organization and the rank and file as possible. Obviously if directions flow down from the top through the chain of command and reports on what is actually happening follow the same channel, the longer the chain the greater the chance that the directions or the reports will be distorted on the way.[75]

Chain of command is a vehicle for carrying out the vertical relationships of authority. The combination of the principles of chain of command and span of control is a determinant of organizational structure. Knezevich explained flat organizational structures as follows:

> A large span of control means that a given executive supervises a large number of people and a relatively flat organizational structure results. In a flat organization there are only a few levels between the lowest and the highest executive echelons in the hierarchy.[76]

Conversely, a short span of control and long chain of command are characteristics of an organization with many authority levels. A tall organization necessitates extended lines of communication with a result that decision gaps often exist.[77] It appears that the delegation of authority, communication, and decision-making are facilitated by a flat organizational structure.

Balance

The concept of balance means that no one unit within an organization should be structured so that it is favored over other units. Each unit should have a proportionate share of resources, attention, and emphasis to achieve its mission in the overall thrust of an organization. In some discussions of organizational structure, distinctions are made between line and staff and formal and informal organizations. Perhaps, these concepts are interrelated. No one unit of an organizational structure should be placed so exclusively that it would be unnecessary for it to work in a collegial way with other units. Quite the opposite is true. Most units must depend upon and work cooperatively with other units. It is important, however, that there be a clear line relationship with respect to authority so that delegated authority may be identified easily and it can be determined readily who should report to whom.

McFarland noted that "each portion and function of an enterprise should operate with equal effectiveness in making its allotted contribution to the total purpose."[78] The idea of balance is applied to organizational design as well as to functions and processes.[79]

Dale was of the opinion that an "organization must be continually surveyed to ensure that there is reasonable balance in the size of the various departments."[80] Stemnock stated that "there should not be undue emphasis on any unit of the organization at the expense of the other units."[81] Imbalance in a school system could occur when a superintendent of schools favors a particular functional area with an disproportionate amount of his time and energy.[82]

Favoring an element with disproportionate financial support, facilities, or personnel can cause imbalance. The concept of balance can be applied to other aspects of management. The balance between centralization and decentralization, the balance between the horizontal and vertical dimensions of the organizational design are areas needing continual review.[83]

SUMMARY

Organizational principles are devised to provide guidance for the organizer. Dale noted that "unfortunately there is currently no general agreement on the validity of the principles proposed."[84] Until researchers using empirical studies have indicated precise organizational designs for a given situation, the practical organizer is forced to use appropriate organizational principles as suggestions to be applied.[85]

Certain organizational principles appeared to be commonly accepted by classical authors during the early twentieth century and also to be accepted generally by writers during the 1970s. The following principles of organization are frequently cited by authorities: objectives, specialization, coordination, unity of command, delegation of authority and responsibility, span of control, short chain of command, and balance. Universality of application and timelessness are characteristics which are common to these principles of organization.

FOOTNOTES

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23. Stemnock, op. cit., pp. 1-2.

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32. Cooperative Development of Public School Administration, Modern Practices and Concepts of Staffing Schools (Albany, New York: New York State Teachers Association, 1965), pp. 14-15 (The Cooperative Development of Public School Administration is hereafter referred to as CDPSA).

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CHAPTER III

ADMINISTRATIVE AND SUPERVISORY FUNCTIONS OF CENTRAL-OFFICE STAFFS

The general administrative and supervisory functions which must be performed by central-office staffs are similar without regard for the sizes of a school system. Size, however, may determine to some extent how these functions are allocated, how the units of an organization will be formed to permit the best division of labor and the highest degree of accountability and the numbers of persons that may be required within each unit of an organization.

In the introductory chapter of this monograph, the evolution of the superintendency in public education and the necessary expansion of central-office staffs were documented. Experience throughout the history of educational administration has resulted in a rather clear definition of categories of functions which must be performed at a central-office level. In the first section of this chapter, a brief documentation is made from the literature of those functions considered to be necessary in administering and supervising school systems. In the second section, seven essential functions are identified, defined briefly, and documented. The third section is a brief summary of the chapter.

IDENTIFICATION OF FUNCTIONS

Jenson and Clark recognized the primary task of public school administration to be the facilitation of teaching and learning. To perform this overarching function, they identified seven interrelated subtasks which are outlined as follow:

1. School-community relations;
2. Curriculum development;
3. Pupil personnel;
4. Staff personnel;
5. Physical facilities;
6. Finance and business administration; and
7. Organization and structure.[1]

Morphet, Johns, and Reller recognized that few competent persons would fill the superintendency if they are denied the privilege of performing duties commensurate with their abilities and are not provided resources necessary for developing effective and efficient school systems. They divided the duties of a superintendent of schools into the following categories:

1. To serve as chief executive officer of the board of education and thus to be responsible for all phases of the work;
2. To provide leadership in the planning and evaluation of all phases of the instructional program;
3. To select and recommend all personnel for appointments and to guide the in-service growth of said personnel;
4. To prepare the budget for submission to the board and to administer it after its adoption by the board;
5. To determine building needs and to administer building programs--construction, operation, and maintenance; and,
6. To serve as leader of the board, the staff, and the community in the improvement of the educational system.[2]

Griffiths and others stressed that superintendents of schools should not perform all of the major system-wide functions themselves but should supervise and coordinate the work of immediate subordinates. They delineated as follow the major functions to be supervised and coordinated by superintendents:

1. Improving educational opportunity;
2. Providing and maintaining funds and facilities;
3. Securing and developing personnel; and,
4. Maintaining effective relationships with the community.[3]

Snead discovered from research conducted in urban school systems that school-community relations, human relations, and federal programs were the most frequent functions assigned central-office personnel.[4] In his survey of twenty-four school systems, Elseroad concluded that instruction, administration, business operation, school plant, personnel, special services, research, and public relations are the primary functions of central office staffs.[5] Based on his study, Shepherd believed that school board policies should be expanded to cover the tasks of organization and administration of instruction, business affairs, staff personnel, and pupil personnel.[6] Oglesby concluded from his research that central-office functions should be divided into the following duties:

1. Obtaining and developing personnel;
2. Improving of educational programs;
3. Conducting business and financial matters;
4. Participating in the process of supervision;
5. Working with the community; and,
6. Miscellaneous supervisory practices.[7]

A variety of sources were used in this survey to identify the functions of superintendents and central-office staffs. It appeared from the literature reviewed that the functions of central-office staffs are divided into the following areas: instructional administration, business administration, staff personnel administration, pupil personnel administration, educational research administration,

school-community relations administration, and general administration. These central-office functions are integral parts of the total operation of school systems and are explicated briefly in the section which follows.

SEVEN ESSENTIAL FUNCTIONS

In the sections which follow, seven essential functions of central-office staffs, which were identified from the literature, are presented. Each is defined, explained briefly, and documented from the literature when needed.

Instructional Administration

The provision of quality instruction without doubt is the central purpose for the existence of a school system. The maintenance of an achieved level of instructional effectiveness and efficiency within a school system is a primary function of instructional administration. Second, but not subordinate to maintenance, is a continuous thrust to raise the level of efficiency and effectiveness of instructional programs. A third dimension is curriculum development, the designing of new approaches in instruction toward achieving the accepted goals of instruction. Unless a school system has a unit within its organization that is focused sharply upon instructional administration, efforts are dissipated within tasks that well may be related to other units within the organization--for example, personnel administration, business management, and so forth.

According to Miller, Madden, and Kincheloe, responsibility for the instructional program deserves the highest priority among administrative tasks. These authors believed that schools exist to provide instruction. For this reason, the instructional program is the basic and central concern of public school administrators. Although the tasks of pupil-personnel, staff-personnel, school facilities, school-community relations, and financial management were considered to be important by these authors, they were considered to be significant only to the degree that they supported the instructional program.[8]

Authors of an AASA publication stated that the most important functions performed by superintendents and their staffs are in the area of instruction. The sole purpose for schools is the development of children and youth, and the effectiveness of a superintendent of schools must be evaluated in terms of the effectiveness of the instructional program.[9] The function, instructional administration, is not isolated, however, from the other tasks of administration. Miller and others stated the following:

> We consider administrative concern for instruction not as a segment of the task areas but, rather, as a particular focus of public and administrative attention. The nature of administrative concern for instruction is integrative and relational. It is concerned with determining goals and purposes for instruction, with seeking balance and

> relationship among the goals and purposes, with the organization of learning activities, and with identifying the content of instruction and the methods of instruction. The concern is not with accomplishing these jobs as separate individual acts but, rather, with the interaction and coordination of the total staff and student body, the space, the equipment, materials, and the community and social context.[10]

Modern superintendents of schools and their staffs view their responsibilities toward education in a broader sense than did those of the first one-half of the twentieth century. At one point in time, superintendents of schools and their staffs considered their instructional responsibilities to be limited to the inschool education of children and youth; modern day central-office administrators believe that their responsibilities enhance a great variety of inschool and out-of-school programs for children and youth of all ages.[11] Because of such an expanded scope for education, superintendents are not expected to work directly and personally with all of the tasks related to instructional administration and supervision. Griffiths stated that superintendents improve education by developing instructional goals and objectives which are translated to and adopted by school boards and are later implemented by them and their staffs.[12] Dykes believed that the role of superintendents is one of securing the necessary resources to develop the potential of teachers, supervisors, principals, curriculum directors, and others to improve instructional programs.[13] He further viewed the role of superintendents as follows:

> The superintendent's leadership in reference to the instructional program must be largely manifested in the activities of others. It is true that all things pertaining to the instructional program are concerns of the superintendent, but this does not mean that the superintendent can or should take a direct hand in them. It is largely at the level of goal establishment and policy development that the superintendent becomes personally involved.[14]

A program of instruction is a plan for achieving the objectives of a school system. To provide instructional leadership in implementing such plans effectively, a variety of subordinates are needed as parts of central-office staffs of superintendents of schools.[15] The size and scope of a school system are major factors in determining the number of central-office instructional specialists that may be needed.[16]

Administrators in charge of instructional administration under superintendents of schools usually have the title of assistant, associate, or deputy superintendent. In some school systems, such persons may have titles such as director of instruction or coordinator of instruction. Whatever the title, persons who fill this leadership position are responsible for instructional services, curriculum development, and professional staff development.[17] A variety of supervisory positions are needed to support one who is responsible for instructional administration. According to Griffiths, positions of assistant

superintendent should be instituted when systems are large enough to have coordinators of elementary education, secondary education, and pupil personnel.[18] In commenting on the role of assistant superintendents of instruction, Castetter, Griffiths, and Felkner stated the following:

> The assistant superintendent for instruction is a line administrator directly responsible to the superintendent of schools. Reporting to the assistant superintendent directly are coordinators of elementary education, secondary education, and pupil personnel services.[19]

Those individuals who report to an assistant superintendent for instruction are usually curriculum specialists, subject area coordinators, and experts in media and research. Wiles stated that a supervisory staff should provide leadership in curriculum planning, in-service education, research, and evaluation.[20]

The size of an instructional supervisory staff under an assistant superintendent varies from school system to school system depending upon priorities and available financial support. Regardless of the size of a school system, it is recognized generally that the main functions of instructional supervisory staffs are curriculum development and instructional improvement.

Business Administration

Budgeting, budget control, and business management are intricate processes that cannot be relegated to the level of bookkeeping and mere management, although these are necessary. With increasing accountability for performance, it is quite necessary that business administration be given undivided professional attention in school systems. Over a period of time, within the foreseeable future, budgets must be developed that are of a performance nature, and budgeting must become a continuous process rather than something that is done once each year. Further, budget control must be continuous and centrally focused. In addition to these, the major divisions of transportation, school-plant services (maintenance, custodial, and development), food-services, and purchasing and warehousing should be attached directly to the function of business administration.

The position of business administrator as a separate position in central offices is considered to be the oldest of those that are found in central-offices of most school systems.21 With the rapid increase in pupils during the 1950s and 1960s and concomitant need for new school buildings and plant management, the position of school business administrator increased in significance.[22] Although superintendents of schools traditionally have the primary responsibility for procurring resources for the operation of schools and the duty to account for their wise use, the day-to-day business management tasks in most school systems are delegated to a subordinate.

Business administrators are not always given high-level administrative titles. Although the title, "assistant superintendent for business affairs", is considered the most appropriate, the title depends upon the nature of the job and the credentials of an individual filling a position. Other titles used for this position are administrative assistant, business manager, business secretary, business superintendent, purchasing agent, controller, financial secretary, director of business services, and clerk-treasurer of the school board.[23] Nolley[24] and Owen[25] stated that business administration is a major function of school systems and that the function usually is headed by a second-echelon administrator.

The responsibilities of school business administrators range from the typical duties of purchasing and accounting to a variety of auxiliary services such as food services, custodial and maintenance services, and transportation services.[26] Knezevich stated that business administration duties are logistical support services for an educational enterprise. He defined this function as follows:

> Logistics. . .refers to the process of supplying, maintaining, transporting, storing, accounting, and renewing the human, fiscal, and materia' resources necessary to initiate, sustain, or modify activities of organized institutions in pursuit of predetermined goals.[27]

Candoli and others outlined a wide variety of duties performed by business administrators. These are as follow:

1. Budgeting and Financial Planning
2. Purchasing and Supply Management
3. Plant Planning and Construction
4. School-Community Relations
5. Personnel Management
6. In-Service Training
7. Operation and Maintenance of Plant
8. Transportation
9. Food Services
10. Accounting and Reporting
11. Office Management
12. Planning
13. Negotiations[28]

Any authority held by business administrators is delegated to them by superintendents of schools. Usually, business administrators hold "staff" positions within the organizational scheme of school systems without "line" responsibility over other assistant superintendents, principals, teachers, or supervisors.[29] In medium to large-size school systems, business administrators have line authority over a number of individuals who are responsible for sub-tasks in the area of business administration.[30]

It must be remembered that in very small-size school systems superintendents often serve as both educational leaders and chief business officials. This dual role is dictated usually by circumstances rather than by preference.[31] Most authorities agree that consideration should be given to adding school business administrators when enrollments of school systems reach two thousand to twenty-five hundred pupils.[32]

Staff-Personnel Administration

There is no function within an organization more important than staff-personnel administration. Personnel administration is not what it was a few years in the past. For example, personnel administration in the past consisted of identifying positions to be filled and the identification of persons to fill such positions. Although these responsibilities are and will remain quite vital, new functions have emerged in importance which require specific attention. The Equal Employment Opportunity Act and the Fair Employment Practices Act both require specific procedures as well as reporting practices. Additionally, evaluation of both certificated and classified employees is mandated in some states such as in the Standards of Quality program in the Commonwealth of Virginia.

Employee-employer relations, whether regulated by the negotiations or collective bargaining rationale or some other arrangement, will become crucial. Experience to date indicates that the best management of this process can be provided within an organization. Experience also dictates that someone with access to policy-making bodies and chief executives of school systems should be charged with this responsibility. Further, administration of grievance procedures should be attached to the personnel function.

In addition, staff development through inservice education should be coordinated for all staff members, not just teachers, at some central locus within an organization. This best may be attached to the function of staff-personnel administration. Th major dimensions of determining staff needs, filling staff needs, administering equal employment opportunity and fair-employment practices, and staff development should not be subsumed under other important functions as has been the case in the past. For example, in the past, the staff-personnel administration function would be listed under either instructional administration or business administration. There is no doubt that the function of staff-personnel administration is related to both of these and not to either exclusively. Consequently, with the added dimensions now impinging upon the function of staff-personnel administration, and the fact that the function belongs neither to instructional administration or business administration exclusively, it should stand by itself as an important unit within any central-office organization.

The addition of a staff-personnel administrator as a part of the central-office staff is viewed as a comparatively new procedure.[33] Moore believed that personnel administration has always been one function of public school systems

since their inception. He stated that personnel duties are performed by either school boards, superintendents, principals, or highly specialized administrative officers.[34] Greene cited five factors which led to the consideration of staff-personnel administration as an independent function at a central-office level. They are as follow:

> 1. . . .the growth of school districts, including consolidation or unification into larger units . . . .
> 2. . . .the shortage of teachers in the years following World War II, which created the need for special efforts to recruit and retain staff. . .
> 3. . . .the mobility of the population in recent years, which has required growing districts to recruit more aggressively and more widely. . . .
> 4. . . .the example of industry, in which personnel specialists have become more common . . . .
> 5. . . .the necessity for working with employee groups in the negotiating process, which requires knowledge and skills. . . .[35]

It generally is recognized that staff-personnel administration, "deals with providing the human resources to execute the instructional and service programs of the school."[36] Jenson and Clark outlined the specific elements of staff-personnel administration as follow:

1. The development of personnel policies;
2. recruitment of staff--both certified and non-certified;
3. screening, testing, and selecting staff people;
4. orientation of new staff;
5. placement and assignment;
6. supervision and appraisal;
7. personnel records; and
8. various other minutia that accompany employer-employee relationships.[37]

The scope of the function of staff-personnel administration varies from system to system. Some superintendents of schools believe that personnel administration should be comprehensive; whereas, others limit it to traditional functions. The writers of an AASA publication listed the sixteen most frequently performed tasks in staff-personnel administration which are as follow:

1. Employment . . . .
2. Placement . . . .
3. Assignment . . . .
4. Administration of personnel office . . . .
5. Administration of personnel rules and regulations . . . .
6. Staff utilization . . . .
7. Administration of substitute teacher services . . . .
8. Adjustment counseling . . . .

9. Personnel reporting . . . .
10. Evaluation . . . .
11. Liaison responsibilities . . . .
12. Employee relations . . . .
13. Salary administration . . . .
14. Administration of personnel provisions of negotiated contracts . . . .
15. Developing personnel policies and procedures . . . .
16. Communication.[38]

Staff-personnel administration is believed to be those complex activities engaged in by public school administrators in an effort to employ and retain the most qualified persons as a means of achieving the objectives of school systems. At the same time, personnel administrators must be concerned that employees attain their personal goals while working to achieve the organizational goals of school systems. The achievement of both organizational goals and employees' goals is believed to be so interrelated that it is considered to be a major emphasis in staff-personnel administration.[39]

According to Van Zwoll, personnel administrators can best serve school systems when they are placed in a staff relationship with other central-office administrators.[40] The function of staff-personnel administration is considered so important that it ideally should be headed by an assistant superintendent who reports directly to a superintendent of schools.[41] A growing trend in small-size school systems is to consolidate all staff-personnel services for both certificated and classified employees into one unit.[42]

The scope and thrust of staff-personnel administration in school systems depend upon the sizes of the systems, resources, commitment to sophisticated personnel-administration practices, and system-wide priorities. According to Chandler and Petty, those school systems in which more than one-hundred fifty classroom units with related services are operated should have an identified personnel office.[43] Fawcett, using ratios from business and industry, said that comparatively speaking it would be possible to have one staff member in personnel services for each one to one hundred fifty employees.[44]

Pupil-Personnel Administration

In some school systems, pupil-personnel services are subsumed under instructional administration. Since 1940, there has been an increasing demand to meet the individual needs of pupils.[45] As a consequence, unless those expanded services to pupils that augment and supplement regular or traditional classroom instruction are grouped for special attention, the thrust of instructional administration may be diluted. Within this area are services such as testing, visiting teacher services, guidance and counseling, attendance, pupil health, psychological services, home-bound instruction, special education, pupil placement and adjustment, and so forth.

Pupil-personnel administrators within school systems manage those services to pupils that supplement traditional classroom instruction.[46] According to the authors of an AASA publication, "whereas the chief mode of instruction is the acquisition of knowledge and the improvement of cognitive power, the chief mode of pupil services focuses upon the pupil himself."[47]

A variety of opinions are expressed in the literature about the types of services which may be classified in the domain of pupil-personnel administration. The Council of Chief State School Officers listed five services to be included in pupil-personnel administration: attendance, guidance, school social work, school health, and psychological services.[48] In commenting on pupil personnel, Jenson and Clark stated that pupil-personnel administration should involve the following: pupil inventory and organization, pupil accounting, health services, child study, guidance and counseling, testing, visiting teacher services, social worker services, speech and hearing therapy, control of student behavior, transportation, and psychological service.[49]

Although a number of writers in the field indicated that pupil-personnel administration should be under the realm of instructional administration, the trend is to maintain an independent administrator who would coordinate the services while working closely with instructional personnel. It is, however, only in the large school systems that the function of pupil-personnel administration is seen as a separate and equal function to instructional administration. The scope and organization of pupil-personnel services depend to a large extent on the sizes of school systems.[50]

In those school systems in which a specific pupil-personnel administrator is maintained usually he occupies a third-echelon position under the direction of an assistant superintendent for instruction.[51] Griffiths stated that the title of this position should be "coordinator of pupil-personnel services."[52] This administrator is considered to have line authority over those special service personnel who work directly under him and a staff relationship with school-based personnel and other individual school administrators.[53]

Educational Research Administration

Decision-making must be based upon an accumulation of "hard" data if resulting decisions are to be the best possible. Further, as resources become increasingly scarce, and competition among various public services for available resources becomes increasingly acute, additional attention to planning and research as bases for selection of priorities must be given emphasis. The move in some states, as in the Commonwealth of Virginia by Constitutional mandate executed through the Standards of Quality program, will become more pronounced in future years than currently is the case. Consequently, every school system will have to

give attention to developing a long-range planning capability. The beginning point in developing accountability in any school system is the development of an effective department of research and planning.

Despite the prominent role that research and planning had in the development of business, industry, and science, educators expend only limited resources for research and planning purposes.[54] Because of the additional cost for research and planning services, administrators and school boards are reluctant to develop separate departments of research and planning.[55] According to Clark, there is an identifiable increase in research and planning resulting from activities generated because of the Elementary and Secondary Education Act of 1976. He reflected on this increase as follows:

> An R (research) and D (development) revolution was upon the field and one fact stands out as more important than all the others--research and development was moving into the mainstream of American education. The ambiguous role of research in education--the peripheral status of the educational researcher--seemed to be a thing of the past. The newly initiated effort involved public schools, state education agencies, inter-agency organizations, community health and welfare programs, as well as the traditional research in the college and university setting.[56]

Educational research has been conducted for years at federal, state, and local levels. Grieder and others stated that five general kinds of research are usually conducted at the local school level:

1. Conducting testing programs,
2. compiling statistical reports and records,
3. rendering reference, information, and publicity services,
4. making specific studies, such as budget analyses, school plant studies, curriculum and instruction investigations, and
5. carrying on miscellaneous activities relating to general administrative problems and office routine.[57]

The establishment of a position of director of research and planning with adequate clerical assistance was strongly urged by authors of an AASA publication.[58] Castetter believed that such a central-office position is a staff position and that the person filling this job should report directly to the superintendent of schools.[59]

General Administration

Most authorities in management believe that every organization should have a single executive head or that an organization should be structured on the "unit-executive plan." This means that the chief administrator should be the one

person responsible directly to the policy making body in suggesting those alternative policies, procedures, and directions needed for the policy making body to make wise choices in decision making and to effect in an efficient and effective manner the policies, procedures, and directions adopted by that body. Additionally, the chief executive responsible for general administration must devote his energies to the development of effective board-staff relationships, oversee the management of the entire school system, and coordinate through leadership the various units of the system toward the central goals of the system. Quite naturally, the superintendent of schools must accept the responsibilities of general administration.

When a school system becomes too large for a superintendent of schools to execute all of the administrative functions, the position of assistant superintendent should be created. Such a position entails a variety of responsibilities.[60] These areas of responsibility usually are divided into the following, broad tasks: "Improvement of the education program, selection and development of personnel, management of schools, and working with the community."[61]

In practice, the titles of persons assigned to second-echelon positions in general administration include administrative assistant, assistant for administrative services, associate, or assistant superintendent. Whatever title is used, a second-echelon general administrator is expected to assist the superintendent of schools in coordinating the function of general administration. He should report directly to the superintendent of schools. For a second-echelon general administrator to be more effective, he must have a very close relationship founded on mutual trust and confidence with the superintendent of schools.[62]

School-Community Relations Administration

Although everyone employed in a school system is responsible for school-community relations, unless someone is assigned a formal responsibility for this function, outcomes are random, uncoordinated, often conflicting, and rather ineffective. The public demands a "right to know", and this perhaps is not undesirable. This phenonmenon can be used in a positive way if a well coordinated program of school-community relations can be developed and maintained. Preparing school information for dissemination through public communications media is one dimension of the function. Development of regularly circulated "inhouse" newsletters and memoranda for building organizational cohesion is another. The communications process must be two-way. Not only should there be output of information, but a continuous process should be developed to get reliable information from the lower echelons of an organization and from all segments of the public to the central-office staff and the policy-making body.

Also, effective liaison must be maintained with community organizations such as civic clubs, parent-teacher organizations, other governmental agencies and groups, employee groups, citizen groups, and individual citizens. Unless

there is a coordination of the two-way informational process, a school system cannot be as effective and as efficient as it might be. Many school systems today that are productive are not believed to be so because of the existing credibility gap between what public education is accomplishing and what the public believes it is accomplishing. More than ever before effective school-community relations efforts are needed in effective school systems.

One of the most critical but often most unorganized functions of central-office administration is school-community relations. Jenson and Clark stated that a successful school-community relations program should be based on the following considerations:

> . . .a careful assessment of the characteristics of the community, the general level of approval or disapproval of the school program, a determination of the educational philosophy held by the citizens, the receptivity of the community to change and innovation, an analysis of communication patterns and the effectiveness of communication, weighing of desires and aspirations that citizens have for their schools, building a realistic expectation of what schools can and should do in the community, organizing an effective program of keeping the citizens informed and providing information, and engendering a commitment on the part of the people for the support of education.[63]

The importance of school-community relations increased during the 1950s. The gap between superintendents of schools and their communities was believed to be one of the major reasons for the release of many superintendents of schools from their positions during that period. It is extremely important for superintendents of large and small-size school systems alike to relate closely with their communities and be able to identify problems and solve them before they become issues.[64]

Because of the complexity of school-community relations, the need for a specialist to direct the program is evident to administrators and school boards of both large and small-size school systems.[65] Clabaugh stated that, "every school system, no matter what its size, should have an individual or a department with this responsibility."[66] In large-size school systems, this position usually is given the rank of assistant superintendent; whereas, in small-size school systems, this position is considered to be of a low priority.[67]

The role of school-community relations administrators is considered often to be vague because their work involves many areas of school administration. In an effort to improve both internal and external communications, a school-community relations administrator must impinge upon certain areas that normally are reserved for other administrators in school systems.[68] A school-community relations administrator normally holds a staff position and reports directly to the superintendent of schools.

SUMMARY

As school systems grew in size and complexity, the number of functions performed by superintendents of schools and their staffs also increased. It is recognized that the primary responsibility of public school administration is the facilitation of teaching and learning. Other functions performed are considered to be auxiliary to and supportive of quality instruction for all children and youth.

The functions identified in the review of the literature to be necessary for administering have been explained in the discourse included in this chapter. It appears from the literature reviewed that the major administrative and supervisory functions of central-office staffs are as follow: instructional administration, business administration, staff-personnel administration, pupil-personnel administration, educational research administration, general administration, and school-community relations administration. It is recognized that the performance of these functions varies from system to system depending on the sizes of the systems and the organization of the personnel available in the various school systems.

FOOTNOTES

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CHAPTER IV

ORGANIZATIONAL PATTERNS OF SCHOOL SYSTEMS STUDIED IN THE SURVEY

School systems during the 1970s appeared still to be structured according to the bureaucratic concepts described by Fayol, Weber, and other writers of the "scientific management" era.[1] Although the structures suggested by these early writers appeared to have been modified somewhat by educators, the basic characteristics of the classical bureaucratic model were very evident in the organizations of the school systems studied during the survey reported in this monograph.[2] Writers in the field of educational administration whose works were studied during the review of the literature prior to conducting the survey foresaw no other feasible approach to the maintenance of the concepts of bureaucracy within school systems.[3]

From the review of the literature, it was concluded that organizational structures in which certain generally accepted principles of organization are incorporated are more effective and more efficient than are those which are not based upon consistent principles.[4] It was determined further that certain functions must be performed at a central-office level in all school systems regardless of the sizes of the pupil populations served.[5] It is believed, therefore, that effective and efficient educational organizations are developed according to classical managerial principles to perform certain necessary functions.

The purposes of this chapter are to state certain observations about the methodology used in analyzing the organizations of the central-offices of the school systems studied with respect to principles of organization, the functions performed, and organizational charts, and to present typical organizational charts for the three size categories of school systems studied. The first purpose is treated in the first three sections of the chapter, and the second is achieved in the last three sections of the chapter.

OBSERVATIONS ON THE USE OF PRINCIPLES OF ORGANIZATION IN THE SCHOOL SYSTEMS STUDIED

The objectives of bureaucratic organizations are efficiency and effectiveness.[6] To achieve these objectives, organizations are developed through applications of the classical principles of management. Although many managerial principles have been suggested in the literature of administration, there appears to be a set of universal principles generally accepted by both theorists and practitioners. These principles are as follow: objectives, coordination, specialization, unity of command, delegation of authority and responsibility, span of control, short chain of command, and balance.[7] Each of these principles was

discussed in some detail in Chapter II of this monograph.

Based upon the definitions of these principles of organization and the essential functions to be performed by central-office staffs, an organizational chart was developed for each of the fifty-nine school systems studied in the survey reported in this monograph. Additionally, policy manuals and other data were made available from each school system.

Organizational charts are diagrams of the formal authority structures and interrelationships within organizations.[8] Although it was not possible to determine the objectives of the organizations through the use of the organizational charts (these data were secured by other means), it was possible to evaluate the extent to which other principles of organization were utilized once the charts were developed.

Mechanical considerations made in the preparation of charts included the use of rectangular boxes to indicate positions and the use of solid lines to depict the flow of authority. Lines of cooperation or advisory relationships were not shown on the organizational charts developed in the survey because such lines would be so numerous that they would be meaningless.[9]

Coordination both among and between departments was interpreted from the solid lines shown on the organizational charts. It was assumed that each superior coordinated the activities of all persons who reported to him with the superintendent as the single executive head of the organization with ultimate responsibility for all functions.

Specialization was shown on the organizational charts through departmental organization by function and by the titles of positions which were indicated. Unity of command was identified easily by counting the number of superiors to which each subordinate was responsible. The unity of command principle means simply that no person should be responsible directly to more than one superior.

Authority and responsibility were accepted at face value through examining the flow of the authority line. Each person must be delegated the authority to administer the programs for which he is accountable. All positions shown on the organizational charts were line rather than staff positions within given areas of responsiblity.

The chains of command were represented on the organizational charts by the flow of authority through the various levels in the hierarchies. Span of control was determined readily by counting the number of subordinates reporting directly to any superior. The limits to span of control were functions of the extent to which authority and responsibility were delegated.

Balance typically was assumed by comparing the sizes of the departments and the titles of positions within the charts. Another indicator of balance was determined by comparing the numerical adequacies of the various central-office staffs by function.

OBSERVATIONS ON THE USE OF ESSENTIAL FUNCTIONS IN THE SCHOOL SYSTEMS STUDIED

The central-office functions of the systems studied were compared to those assumed to be essential at that level as revealed through the review of the literature. These functions are instructional administration, business administration, staff-personnel administration, pupil-personnel administration, research administration, general administration, and school-community relations administration. Each of these functions was discussed in some detail in Chapter III of this monograph.

The functions performed by the central-office staffs of the school systems studied were determined from the questionnaires completed by the members of the various staffs and from the policy manuals obtained from each of the school systems studied. The school systems studied were organized according to the bureaucratic model and usually were structured by departments in which clusters of persons performed specialized tasks related to the designated general departmental objectives. Because of the importance of instructional administration and business administration, departments responsible for these functions usually were headed by second-echelon administrators frequently with the title of assistant superintendent. The function of staff-personnel administration often was headed by a second-echelon administrator; however, this position sometimes was placed in the department responsible for instructional administration as was the function, pupil-personnel administration.

Typically, the function, research administration, was performed to a limited extent in the department responsible for instructional administration. Persons employed in school-community relations administration and those other than the superintendent of schools employed in general administration usually were not given second-echelon rank in the administrative hierarchy.

OBSERVATIONS ON THE ORGANIZATIONAL STRUCTURES OF THE SCHOOL SYSTEMS STUDIED

Although some writers question the validity of organizational charts depicting the organizational structures of "typical" school systems, the authors of this publication believe that such charts would be useful to school administrators wishing to compare their organizational structures to normative practices. The usage of such charts in similar size school systems would be limited by factors

such as local traditions, different needs and expectations, different educational and administrative philosophies, and different levels of financial ability.[10]

The primary variable which seemed to be related to the organization of school systems was that of pupil population. For this reason, the systems studied were categorized as being small, medium, or large. Small-size systems are those with fewer than six thousand students; medium-size systems are those having more than six thousand pupils but fewer than twelve thousand pupils; and large-size systems are those with more than twelve thousand students. In the three sections which follow, findings in the survey with respect to the organizational structures of the various school systems studied are presented. The three sections are organized by the sizes of school systems described above. Included with each section is an organizational chart considered to be typical for each of the groupings.

ORGANIZATIONAL STRUCTURE OF THE CENTRAL-OFFICE STAFFS OF THE SMALL-SIZE SCHOOL SYSTEMS STUDIED

The organizational structure of the central-office staffs of the small-size school systems studied was based upon the classical bureaucratic model. This was evidenced by the use of hierarchical flow of authority which began with the superintendent of schools and moved down to teachers. According to the organizational charts for the school systems studied, and an analysis of questionnaires completed by central-office staff members about their functions and to whom they were responsible, it was found that in most school systems there existed a line and staff relationship among the central-office staff members.

It was determined that the superintendents of schools in small-size school systems retained most of the line authority over both central-office staff members and building principals. For the most part, second-echelon administrators, directors of instruction or assistant superintendents, had line authority over subordinates within their respective departments but had no line authority over building principals. The third-echelon central-office staff members, coordinators and supervisors, held staff or advisory relationship to those in line positions.

The personnel in the central offices of the school systems studied were organized into departments based on the functions performed. It was found that separate departments of instruction, pupil personnel, and general administration were prevalent in small-size school systems. Although in a majority of cases second-echelon administrators headed the departments of instruction and general administration, the pupil personnel department was headed by the superintendent or an assistant, depending on the size of the system.

An organizational chart was developed which represents the typical functions performed and authority relationships which existed in the central offices of the school systems studied. Depicted on the representative chart are the hierarchical levels, the departments, and the commonly used titles in the systems studied. The synthesized organizational chart developed in the survey is shown in Figure 4-1 and is based on an average daily membership of three thousand five hundred pupils which was a mean for school systems with fewer than six thousand pupils.

To determine which central-office functions were considered most essential, an analysis was made of the relative position in the hierarchy of each staff member and the number of persons employed to perform each of the identified functions. Based on these criteria, the functions given the greatest emphasis in small-size school systems were found to be instructional administration, pupil personnel administration, and general administration. Although the functions of business administration and staff personnel administration were performed, they were given limited emphasis. The performance of the functions of educational research administration and school-community relations administration were neglected with respect to formal attention generally by central-office staffs of small-size school systems.

Among the seven essential functions of central-office staffs, instructional administration was given the highest priority. The function of instructional administration usually was delegated to a second-echelon administrator with the title assistant superintendent for instruction or director of instruction.

Pupil-personnel administration was another important central-office function. The services provided most frequently in this area among small-size school systems were school attendance, psychological services, and coordination of special education. In school systems of three thousand or fewer pupils, the persons who performed these services reported to the superintendent; whereas, in systems with more than three thousand pupils, these services often were administered by a coordinator of pupil-personnel services who worked in the instructional department.

The function, general administration, was found to be another important function of the central-office staffs. The superintendent usually performed a major part of this function by coordinating the work of the entire central-office staff toward achieving the goals of the system. A second-echelon general administrator was employed frequently in the central-office staffs of the small-size systems studied. Because these systems were not large enough to employ specialists in each area, a general administrator often was used to perform two or more of the administrative functions. This person usually held the title assistant superintendent or administrative assistant to the superintendent.

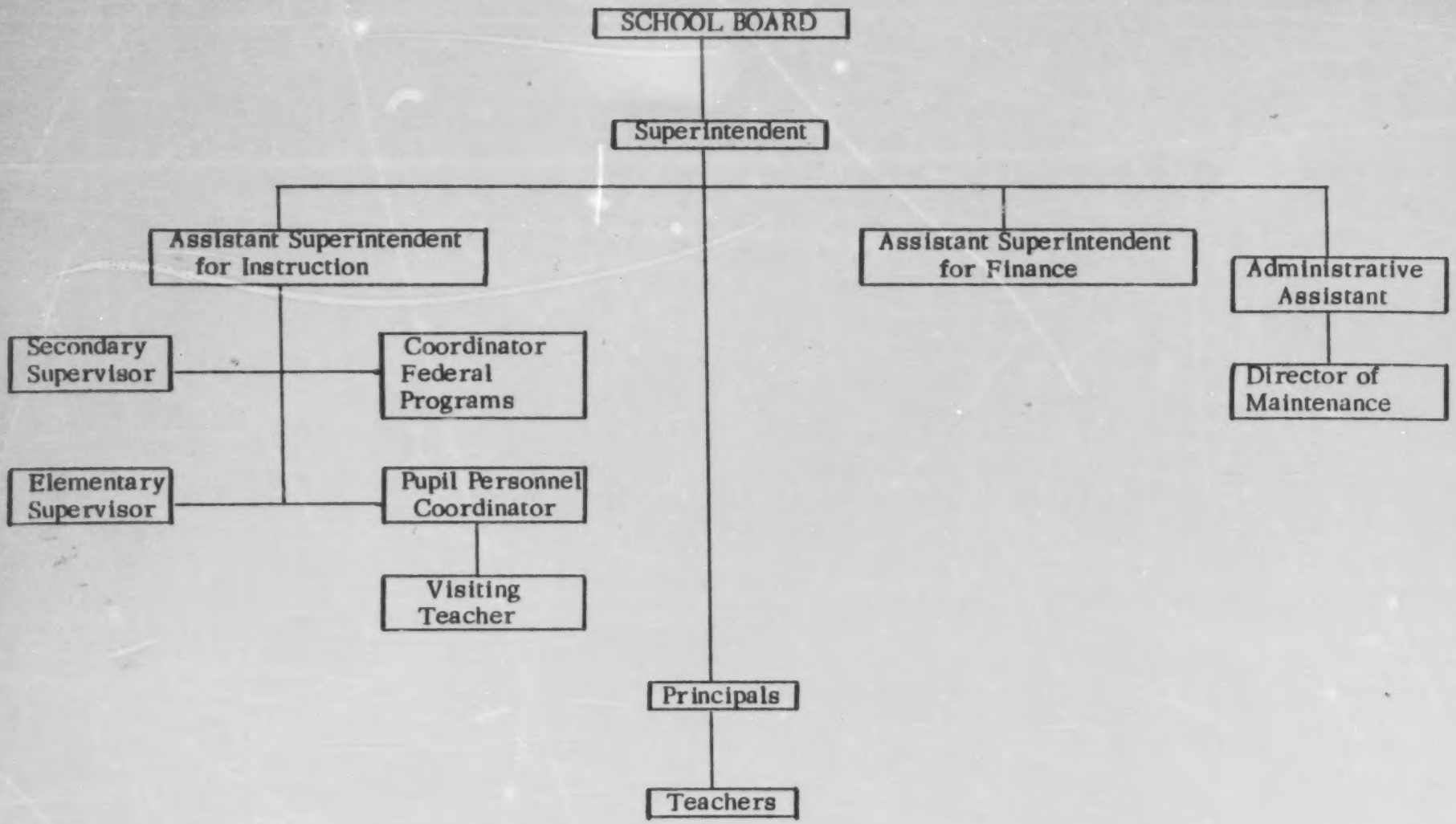

FIGURE 4-1

ORGANIZATIONAL CHART REPRESENTATIVE OF THOSE OF THE SMALL-SIZE SCHOOL SYSTEMS STUDIED

Business administration as a function in the central-office was performed by the superintendent in most systems with fewer than three thousand pupils. In systems with enrollments of more than three thousand pupils, business administration often was delegated to a second-echelon staff administrator who was given the title assistant superintendent for finance, director of finance, or finance officer.

The function, staff personnel administration, was performed by the superintendent of schools in most systems with fewer than three thousand pupils. In school systems with enrollments in excess of three thousand pupils, this function usually was shared with other central-office staff members or delegated to a second-echelon subordinate.

The functions, educational research administration and school-community relations administration, were given little emphasis in the systems studied. No single individual was delegated the responsibility to perform these two functions in ninety-seven percent of the systems studied. Having someone assigned formally to perform these functions was given only passing consideration by most of the superintendents interviewed. In most cases, they indicated that research and school-community relations should be parts of the assignments of most administrators and supervisors at a central-office level.

ORGANIZATIONAL STRUCTURE OF THE CENTRAL-OFFICE STAFFS OF MEDIUM-SIZE SCHOOL SYSTEMS STUDIED

The central-office staffs of the medium-size school systems studied generally were organized according to the bureaucratic model. Organizational charts were available for practically all of the systems; however, all members of each central-office staffs were asked to complete questionnaires on which they gave data relative to the flow of authority and the actual functions and tasks they performed. These data were used to verify, and to modify in some cases, the available organizational charts so that those used in the survey would be as accurate as possible.

Superintendents of schools exercised line authority over department heads in all systems studied in the survey and other principals in a majority of the systems. It was observed, however, that a second-echelon administrator, usually an assistant superintendent or director of instruction, had line authority over principals in approximately one-half of the systems studied. The line authority of other central-office administrators or supervisors usually was limited to the line authority retained by department heads over subordinates within their departments. The authority of instructional supervisors and administrators within other departments was limited usually to staff or advisor capacities.

The central-office staffs typically were organized into departments by functions. The major departments found were the departments of instruction,

business, and staff-personnel. Second-echelon administrators usually headed each of these departments.

Despite the many differences among the organizational charts of the systems studied, an organizational chart which was representative of most of the systems was prepared. Emphasized in the representative chart are the hierarchial levels, the departments, and the uniformity of the titles of the positions studied. The organizational chart described above is shown in Figure 4-2.

The relative emphasis placed upon the central-office functions was determined by noting the placement of the head of each department in the organizational hierarchy and the number of persons employed to perform the functions. According to the criteria previously mentioned, major functions of the central-office staffs of medium-size school systems were instructional administration, business administration, staff-personnel administration, and general administration. Other functions were pupil-personnel administration and research administration. School-community relations administration was not usually a function specifically assigned to an employee of the central-office staffs studied. Instructional administration was the most frequently performed function of the central-office staffs studied. In all the systems, the head of the instructional department was a second-echelon administrator. More persons were assigned to instructional administration than were assigned to any other function.

Business administration was another very important central-office function. In several of the systems studied, the direction of the business function was retained by the superintendent. In all other systems, the function was headed by a second-echelon administrator. Additional business administrators usually were employed to coordinate the transportation, maintenance, and food-service programs.

A third major function was staff-personnel administration. Some superintendents retained the function of staff-personnel administration, although the majority of superintendents delegated this function to second-echelon administrators. The primary tasks of the staff-personnel administrator usually were in the areas of recruitment, placement, and evaluation of system employees; however, the staff-personnel administrator in one system served as the chief negotiator for the school board.

General administration was a major function of all the central-office staffs studied. The superintendent performed this function, generally, with the assistance of either an administrative assistant or an assistant superintendent.

The function of pupil-personnel administration usually was included within the instructional department. This function was directed generally by a third-echelon administrator. This function had been expanded recently in many school systems because of state-mandated services for exceptional children.

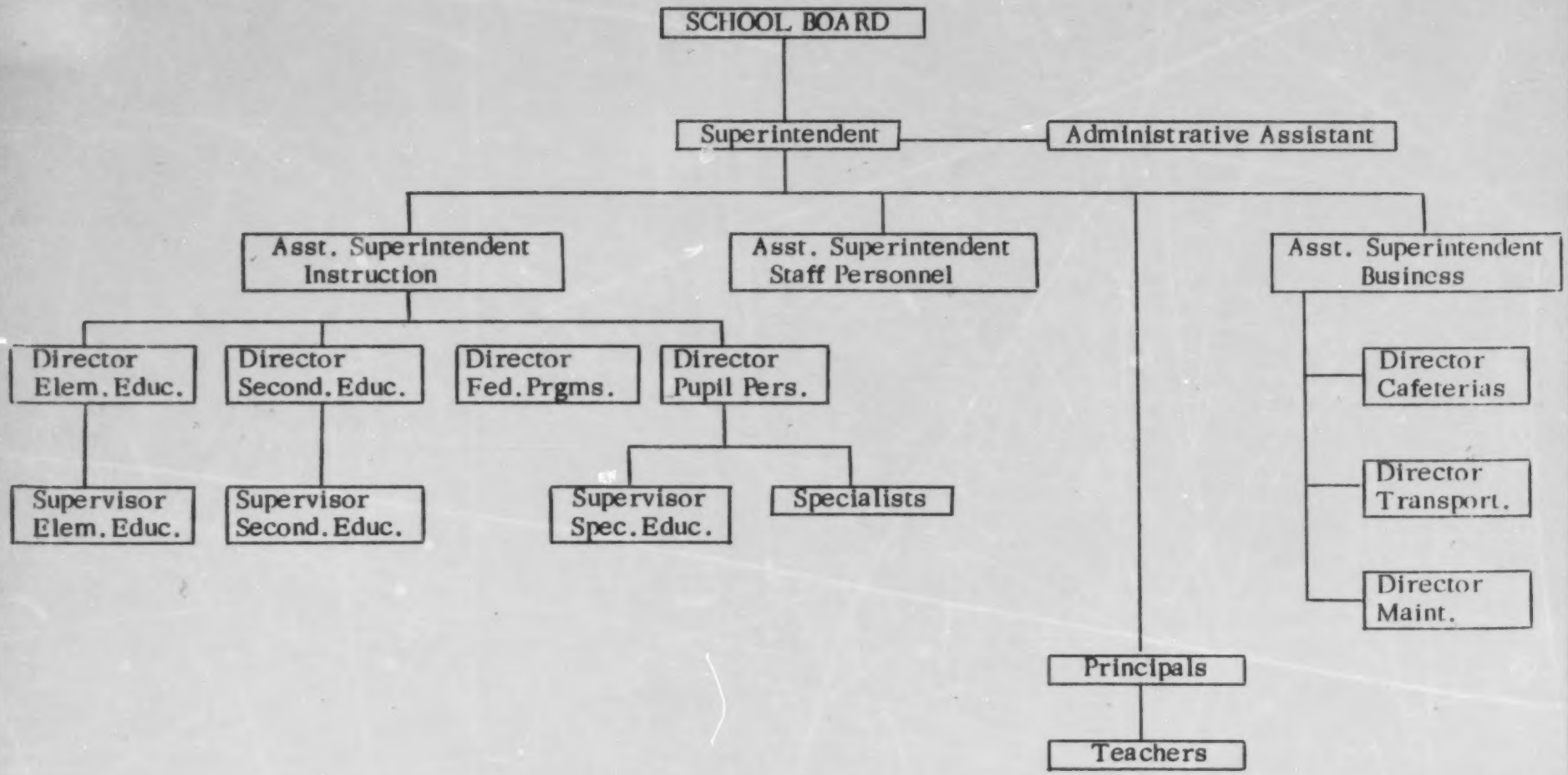

FIGURE 4-2

ORGANIZATIONAL CHART REPRESENTATIVE OF THOSE OF THE MEDIUM-SIZE SCHOOL SYSTEMS STUDIED

Although educational research administration was performed in a few of the systems which were studied, the function generally was given minor attention. Some research activities were attempted in several cases by pupil-personnel administrators. School-community relations administration also was not a major function of the systems studied. Limited school-community relations activities appeared to be coordinated by either the superintendent of schools or his administrative assistant.

ORGANIZATIONAL STRUCTURE OF THE CENTRAL-OFFICE STAFFS OF THE LARGE-SIZE SCHOOL SYSTEMS STUDIED

The central-office staffs of the large-size school systems studied were organized according to the bureaucratic model. Organizational charts were available for all of the seventeen systems studied. Members of each central-office staff were asked to complete questionnaires on which they listed not only the flow of authority but also their actual functions and tasks within their systems. It was found by examining the questionnaires that channels of communication and the chain of command were unclear to some individuals in several systems.

The superintendents of schools exercised line authority over department heads in every system and over building principals in several of the systems. It was observed, however, that a second-echelon administrator, usually a deputy superintendent or assistant superintendent for instruction, had line authority over principals in approximately one-half of the systems studied. The line authority of other central-office administrators or executives usually was limited to the line authority retained by department heads over subordinates within their departments. The authority of instructional supervisors and administrators within other departments was limited usually to staff or advisory capacities.

The central-office staffs were organized into departments by functions. The major departments found were the departments of instruction, business, pupil personnel, and staff personnel. Second-echelon administrators frequently headed each of the departments mentioned previously.

Because of the many differences among the organizational charts of the systems studied, two organizational charts were prepared. One chart is representative of systems having enrollments of twelve thousand to twenty-five thousand students, and the other chart is representative of centralized systems having enrollments of more than twenty-five thousand students. Emphasized in the representative charts are the hierarchial levels, the departments, and the uniformity of the titles of the positions studied. The organizational charts described above are shown in Figure 4-3 and in Figure 4-4.

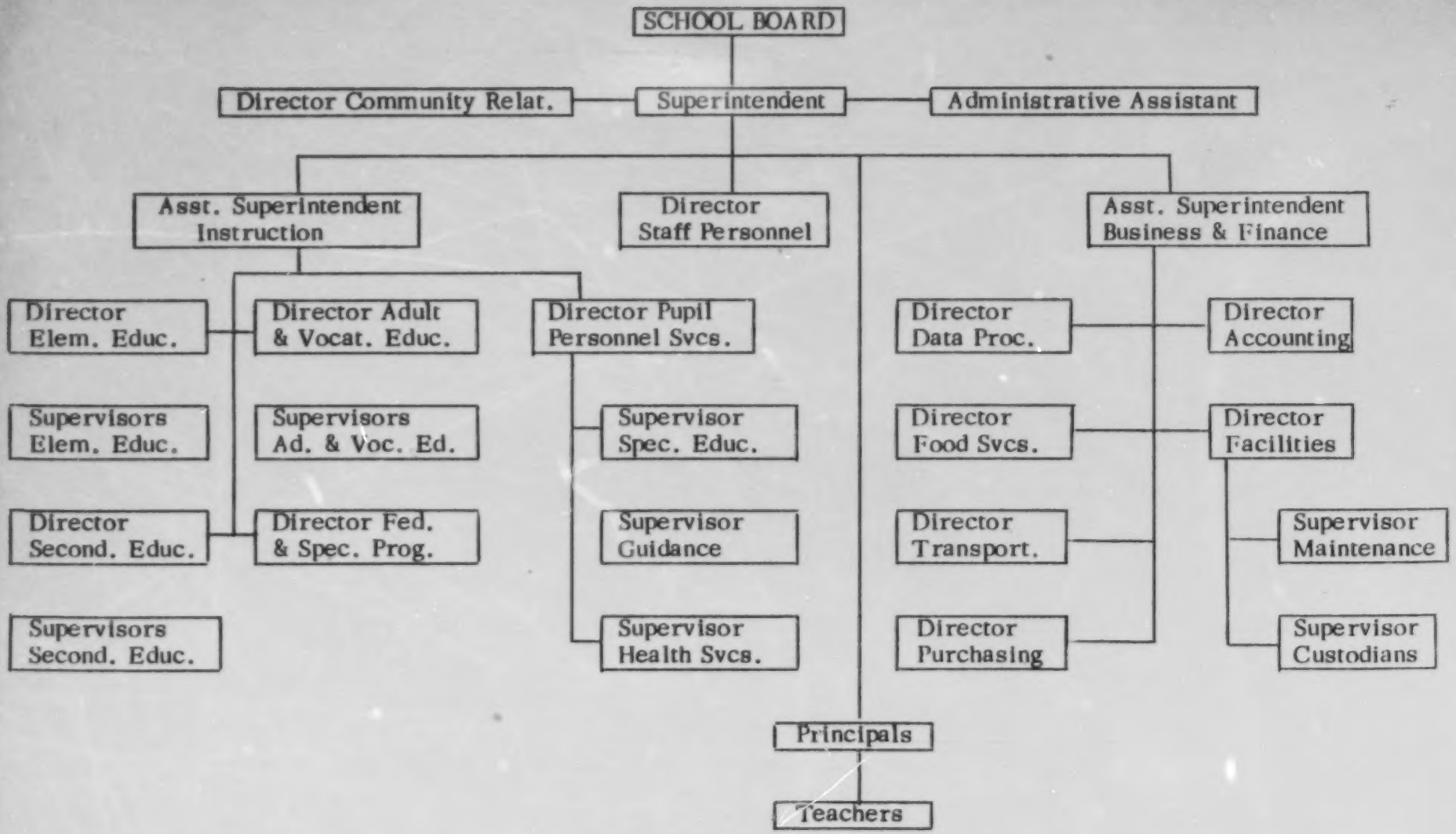

FIGURE 4-3

ORGANIZATIONAL CHART REPRESENTATIVE OF THOSE OF SYSTEMS OF MORE THAN TWELVE AND FEWER THAN TWENTY-FIVE THOUSAND STUDENTS

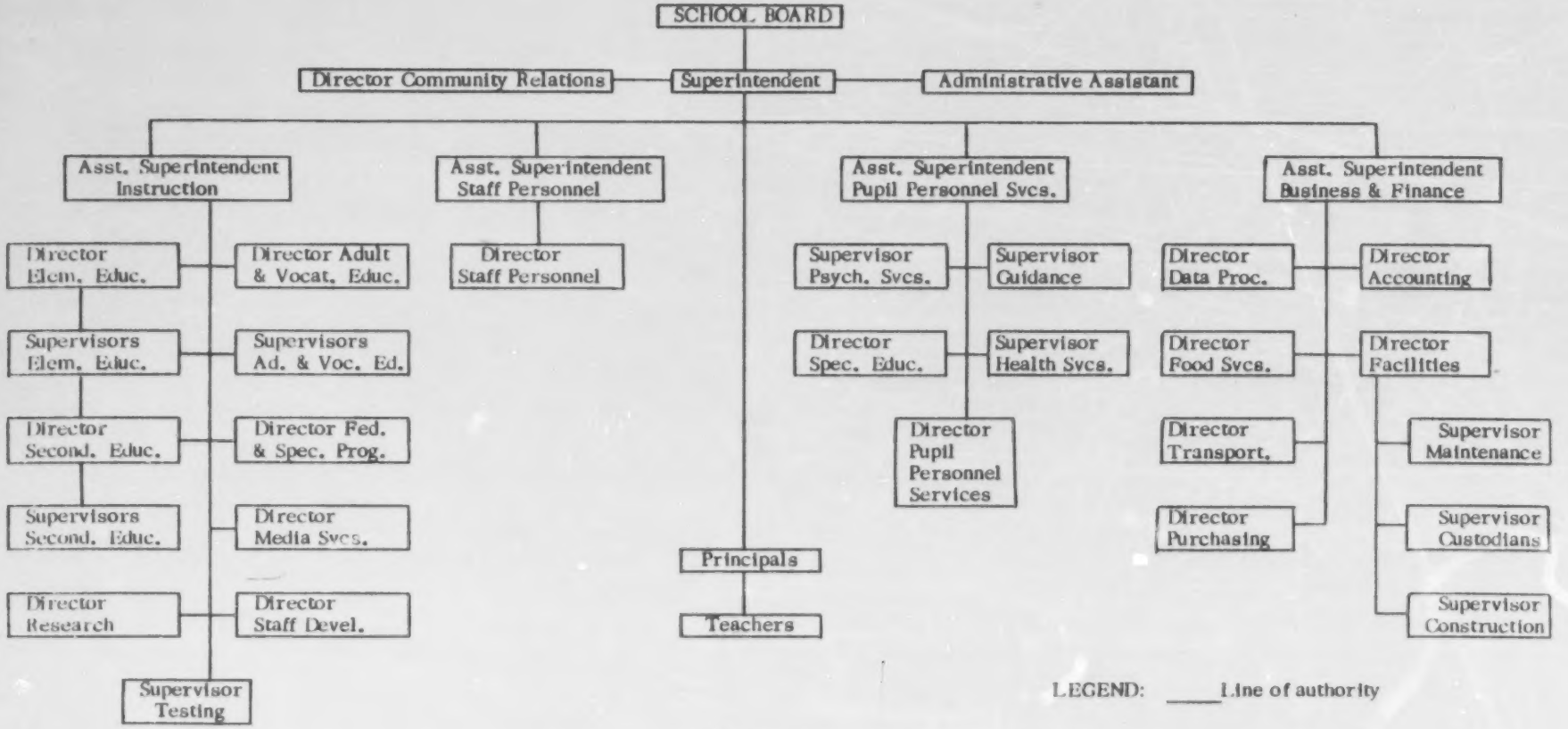

FIGURE 4-4
ORGANIZATION CHART REPRESENTATIVE OF THOSE OF SCHOOL SYSTEMS
OF MORE THAN TWENTY-FIVE THOUSAND STUDENTS

Systems with Enrollments of Twelve to Twenty-five Thousand Students

Seven systems had enrollments of from twelve thousand to twenty-five thousand students. The relative emphasis placed upon the central-office functions was determined by the placement of heads of departments in the organizational hierarchy and the number of persons employed to perform the various functions. According to the criteria previously mentioned, major functions of the central-office staffs of large-size school systems were instructional administration, business administration, pupil-personnel administration, staff-personnel administration, and general administration. Other functions were school-community relations administration and research administration.

The function, instructional administration, was the most consistently performed function of the systems studied. In all seven of the systems, the head of the instructional department was a second-echelon administrator. More persons were assigned to instructional administration than were assigned to any other function.

Business administration was the second most frequently noted central-office function. In all of the systems studied, the direction of the business function was delegated by the superintendent. In all except one system, the function was headed by a second-echelon administrator. Additional business administrators usually were employed to coordinate the accounting, transportation, purchasing, maintenance, data-processing, and food-service programs.

Staff-personnel administration was a third major function. Most superintendents delegated the function of staff-personnel administration to a third-echelon administrator who reported directly to the superintendent. The primary tasks of staff-personnel administrators usually were in the areas of recruitment, placement, and evaluation of system employees; however, the staff-personnel administrators in some systems served as negotiators for the school boards and also resolved employee grievances.

General administration was a major function of all the central-office staffs studied. The superintendent of schools usually performed this function, generally, with the assistance of either an administrative assistant or an assistant superintendent. A deputy superintendent was employed in one system.

The function, pupil-personnel administration, usually was included within the instructional department and was directed by a third-echelon administrator. The function had been expanded recently in several systems because of state mandated services for exceptional children. Included in the function, pupil-personnel administration, usually were health services, special-education services, and similar types of services.

Although research administration was given formal recognition in several of the systems, the function generally was considered to be a minor one. Some research activities were conducted by instructional administrators in several of the systems.

School-community relations administration was usually a responsibility of an administrative assistant who reported directly to the superintendent. In some systems, the superintendent retained primary responsibility for school-community relations.

In the seven systems with enrollments of from twelve thousand to twenty-five thousand students, the total number of central-office administrators ranged from twenty-one to fifty-five. There appeared to be a tendency to increase the number of assistants to various department executives as the number of students in the system was increased.

Systems with Enrollments of More Than Twenty-five Thousand Students

Ten systems of those studied had enrollments of more than twenty-five thousand students. Nine of the ten systems had centralized organizational structures. One system, with an enrollment of more than one hundred thousand students, had a decentralized organizational structure. It was considered to be appropriate to separate the decentralized system from the centralized system to prevent distorting the data relative to centralized structures.

Centralized Organizations. The relative emphasis placed upon the central-office functions was determined by noting the placement of the heads of departments in the organizational hierarchy and the number of persons employed to perform the functions. According to the criteria previously applied, major functions of the central-office staffs of extremely large-size school systems were instructional administration, business administration, pupil-personnel administration, staff-personnel administration, and general administration. Other functions were school-community relations administration and educational research administration. A representative organizational chart is shown in Figure 4-4.

As in less populous systems, the function, instructional administration, was considered to be the most important task of the systems studied. In all the systems, the head of the instructional department was a second-echelon administrator. In some systems, two second-echelon administrators had instructional duties. More persons were assigned to instructional administration than were assigned to any other function.

Business administration was the second most frequently performed central-office function. Direction of the business function was not retained by any superintendent in the school-systems studied. In all of the systems, the function was headed by a second-echelon administrator. Business administrators directed the data-processing, transportation, accounting, maintenance, purchasing, construction, and food-service programs.

Staff-personnel administration was considered to be the third most frequently performed function. None of the superintendents retained direct responsibility for staff-personnel administration. The majority of superintendents delegated this function to second-echelon administrators who were assisted by subordinate administrators. The primary tasks of the staff-personnel administrators were in the areas of recruitment, placement, and evaluation of classified and certificated system employees.

General administration was a major function of all the central-office staffs studied. The superintendent performed this function, generally, with the assistance of an administrative assistant and often an assistant or deputy superintendent.

The function of pupil-personnel administration was headed by a second-echelon administrator in four of the systems studied. In all systems, the administrator responsible for pupil-personnel services supervised subordinate administrators who usually oversaw health services, disciplinary appeals, pupil assignments, special education, visiting-teacher activities, and psychological services.

Research administration was a major emphasis in two of the systems studied. In most systems, however, research generally was conducted as needed by personnel in the various departments.

School-community relations administration was usually a responsibility of an administrative assistant who reported directly to the superintendent. This administrator normally supervised subordinates who were responsible for writing or publishing newsletters and/or brochures. Public releases of school-related activities often eminated from the administrator responsible for school-community relations.

Nine of the ten systems with enrollments of more than twenty-five thousand students were centrally organized. The range of the number of central-office administrators of these nine systems was from forty-two to ninety-eight persons.

One system, which had an enrollment of more than one hundred thousand students, had a decentralized organizational structure. Decentralization as an optional organizational design is recognized and often recommended by authorities for extremely large-size school systems.

Decentralized Design. Decentralized activities, controls, and services are found frequently in very large school systems. During 1975, Ornstein stated: "Thirty out of 45 (67 percent) of systems enrolling between 50,000 and 100,000 students had decentralized or were considering it."[11] Approximately eighty percent of the school districts with enrollments of more than one hundred thousand students have been decentralized.[12]

Arguments in favor of decentralization have been presented by several authorities. Smith was of the opinion that high production is achieved when authority is decentralized.[13] Scheu stated that decentralization "offers greater opportunity for growth."[14] Fleming noted the following advantages of small organizations: (1) encouragement of individual initiative, (2) ease and simplicity of communication and coordination, (3) high orders of human relations, (4) points of decision close to points of action, and (5) responsiveness of local school officials to the local community.[15]

Authorities have described several different types of decentralization. Different forms of decentralization are: decentralized services, regional decentralization, decentralization by feeder schools, and area community control.[16] Regional decentralization is the usual form of administrative decentralization.[17] Andes, Johns, and Kimbrough described regional decentralization in the following statement:

> The regional decentralization model has a central organization, central administrative control, except that part of the central control is delegated to assistant superintendents of each of the regions into which the school system is divided. These regional superintendents function in a similar manner within their region as the superintendent does within a unified school district. They may or may not have a board. The regional superintendents are responsible to the superintendent and to the central board and work within the guidelines set by the central board.[18]

The decentralized units usually are called "areas" or "districts." The modal range for enrollments in decentralized units is between fifteen and twenty-five thousand students. The number of decentralized units per school system varies from two to thirty-one.[19]

It is reasonable to assume that an extremely large-size school district could be administratively decentralized. A typical large-size school district likely would be divided into from three to six administrative areas. The range for enrollment in each decentralized unit is likely to be between fifteen and twenty-five thousand students.

The very large-size system studied was organized so that some of the central-office responsibilities were performed by area-office administrators who

were located in each of four geographical areas of the school system. Each of the four geographical areas was the responsibility of an area superintendent who was assisted by a staff which performed many of the duties normally assigned to central-office administrators.[20]

Each area superintendent directly supervised building principals whose schools were geographically located within the area. Area superintendents were overseen by an associate superintendent who reported directly to the superintendent. All other central-office administrators and area-office administrators had a staff relationship with building principals. Area-office administrators reported directly to an area superintendent, but they received guidance and staff assistance from appropriate central-office staff administrators.

All of the major functions previously listed were performed by the central-office and in some cases area-office administrators. These functions were: instructional administration, business administration, pupil-personnel administration, staff-personnel administration, research administration, school-community relations administration, and general administration. A total of approximately two hundred twenty-nine administrators were involved at either the area-office level or the central-office level to execute appropriate functions and duties.

SUMMARY

From the field studies of central-office staffs of varied sizes, it was determined that the staffs were organized according to the bureaucratic model. It further was found that certain functions were being performed at the central-office level regardless of the sizes of the school systems.

The single function which appeared to be given the most emphasis at a central-office level was instructional administration. The function which received the second emphasis was business administration. Staff and pupil-personnel administration generally were given recognition as functions of the central-office staffs. General administration was emphasized more in the small school systems than in large school systems. Functions receiving only a limited amount of emphasis in most of the systems studied were research administration and school-community relations administration.

Few superintendents in any of the systems studied retained direct responsibility for the function in instructional administration, although many of the superintendents retained at least a few of the responsibilities for business administration in their school districts. Although it was not indicated in the data that the staff and pupil personnel-administration functions would receive much additional emphasis in the immediate future, it would appear that these areas probably would grow in importance because of federal and state legislation in the fields of employee rights and education for the handicapped.

FOOTNOTES

1. George E. Nolley, "The Organizations, Functions, and Adequacies of Central-Office Staffs of Medium-Sized School Systems", (Unpublished Doctor's dissertation, University of Virginia, 1975), p. 279.

2. Ibid., p. 291.

3. Ibid., p. 279.

4. Ibid., p. 300.

5. Ibid., p. 283.

6. Ibid., p. 279.

7. Ibid., p. 280.

8. Ernest Dale, Management: Theory and Practice (New York: McGraw-Hill Book Company, Inc., 1969), p. 180.

9. Paul E. Jorgensen, A Concept of Organization (New York: American Book Company, 1969), p. 53.

10. D. Richard Wynn, Guides to the Solution of Administrative Staffing Problems (Danville, Illinois: The Interstate Printers and Publishers, Inc., 1958), p. 5.

11. Allan C. Ornstein, "School Decentralization: Descriptions of Selected Systems," NASSP Bulletin, March, 1975, p. 25.

12. Ibid.

13. Henry Elam, Psychology of Industrial Behavior (New York: McGraw Hill Book Compnay, 1955), p. 241.

14. Edward M. Scheu, "Organizational Problems After the Merger," Corporate Growth Through Merger and Acquisition, ed. Jerome W. Blood (New York: American Management Association, 1963), p. 113.

15. W. G. Fleming, Ontario's Educative Society/The Administrative Structure (Toronto, Canada: University of Toronto Press, 1971), p. 201.

16. John O. Andes, Roe L. Johns, and Ralph B. Kimbrough, Changes of Organizational Structures of Large School Systems with Special Reference to Problems of Teacher Militancy and Organizational Conflict (Gainesville, Florida: University of Florida, 1971), pp. 243-244.

17. Ornstein, "Administrative/Community Organization of Metropolitan Schools," Phi Delta Kappan, March, 1975, p. 670.

18. Andes, Johns, and Kimbrough, op. cit., p. 244.

19. Ornstein, "School Decentralization: Descriptions of Selected Systems," loc. cit.

20. Fred G. Benham, "The Organizations, Functions and Adequacies of Central-Office Staffs of Large-Size School Systems" (Unpublished Doctor's dissertation, University of Virginia, 1977), pp. 473-474.

CHAPTER V

CENTRAL-OFFICE STAFFING RATIOS

Both the numbers of persons employed at the central-office level and their administrative salary scales were frequent targets for criticism during the budget crises of the 1970s. The numbers of building-level administrators were justified somewhat by accreditation standards; however, no staffing standards for central-office personnel were available. Despite concern for the establishment of central-office staffing ratios or formulae, no individual or group of individuals had developed a model for central-office staffing that was accepted generally by educators.[1]

Both nation-wide and several state-wide studies of staffing patterns had been conducted. Task force members had prescribed numerical staffing needs, particularly for systems undergoing consolidation and reorganization. Authors of textbooks described central-office tasks and the numbers of persons desired to perform various functions. Variables believed to influence staffing ratios were identified; however, no universal formula for central-office staffing was developed.

Staffing ratios in the literature were either descriptive or prescriptive. Writers of educational administration textbooks and members of task forces tended to write prescriptive guidelines; whereas, members of research bureaus and doctoral students developed descriptive or status formulae.[2] Generally no detailed rationales for the prescriptive guidelines were given.

Staffing figures in the literature normally were listed as either pupil/central-office staff, pupil/administration, or teacher/central-office staff ratios. During the 1972-73 school year, there were 1.4 central-office administrators per one thousand pupils, as was shown in a nation-wide survey of systems of all sizes.[3] From 1964 to 1973, the ratio of central-office personnel per one thousand pupils was increased from 1.07 to the 1.4 figure.[4]

Because of the apparent lack of information relative to the staffing ratios actually utilized at a central-office level, it was decided that a complete study of the number of persons employed at that level would be rather valuable both to professional administrators and to school boards. These data when combined with those from studies of organizational structures and central-office functions could be used to provide insight into normative staffing practices.

During the planning phase of the studies, it was decided that the school systems to be analyzed should be categorized according to the relative sizes of their pupil populations. The categories for the studies were those of small, medium, and large-size school systems.

A further complication in the task of defining normative central-office staffing practices was that of the terminology. Two of the important terms utilized in former studies were central-office staff and adequacy. The term central-office staff, as used in the studies, was defined as those persons having system-wide administrative or supervisory responsibilities.[5] Pupil personnel specialists or persons who were housed centrally but worked primarily with children rather than adults were not counted as central-office staff members.

Adequacy was defined as the number of central-office administrators or supervisors per one thousand pupils.[6] Some of the administrative areas for which adequacies were reported were those of instructional administration, business administration, staff personnel administration, and general administration. Other areas for which adequacies were listed were educational research administration, pupil-personnel administration, and school-community relations administration. These areas were consistent with the functional areas of central-office staffs discussed in detail in Chapter III.

An additional difficulty encountered in the studies was that of categorizing central-office administrators and supervisors into the various functional areas for which adequacies were listed. This was complicated by the lack of uniformity of titles and functions among administrators. To solve this problem, the researchers asked members of every central-office staff to complete questionnaires or short job descriptions so that judgments could be made in terms of the appropriate positioning of persons within the functional areas.

In the remainder of this chapter the adequacies of central-office staffs are shown by functional areas of administration. Small-size systems or systems having fewer than six thousand students are discussed first. Medium-size systems are those with more than six thousand but fewer than twelve thousand pupils are analyzed next. Finally, large-size systems or those having more than twelve thousand students are discussed.

It must be noted, however, that these data should not be used to make judgments concerning whether or not certain central-office staffs were "over-staffed" or "under-staffed." The studies were conducted merely as an attempt to depict normative central-office staffing practices, particularly with respect to organizational structure and functions. An additional caution is in order. In each of the three following sections, the first table given is synthesized from a review of the literature. One must bear in mind that the data included therein are somewhat dated, in some instances five to ten years old. A second problem was the translation of job titles into categories of functions. The data included in the second table in each section, however, are reliable and are consistent. The only reason for presenting the "synthesized" national data is to provide the best possible reference in one source for the reader.

STAFFING RATIOS FOR CENTRAL-OFFICE STAFFS OF SMALL-SIZE SCHOOL SYSTEMS

A search of the literature was conducted to determine the staffing ratios for central-office staffs. Descriptive and prescriptive studies were consulted to determine a normative ratio of central-office personnel per one thousand pupils.

It was determined from the literature review that a minimum essential ratio was 1.5 central-office administrators per one thousand pupils.[7] Using this ratio, there was a need for a minimum of two to five staff members for school systems of one thousand five-hundred to three thousand pupils. The maximum number of five persons in the central-office included the superintendent, who performed the duties of general administration and staff-personnel administration. It was recommended further than an assistant superintendent for instruction and two coordinators were needed to perform the function of instructional administration. One person was recommended to perform the function of business administration with one general administrator reporting to him charged with the responsibility for maintenance and transportation. No specific staff recommendations were made for the functions of pupil personnel administration and school-community relations administration. Educational research administrators were not recommended for small-size school systems.

For school systems of from three thousand to six thousand students, it was concluded from the literature review that there was a need for from five to nine central-office administrators. It was determined that the maximum number of nine positions should include four instructional supervisors, one coordinator of pupil personnel, one assistant superintendent for staff personnel, and one assistant superintendent for finance. General administration was the responsibility of the superintendent and his administrative assistant. The data derived from the literature review and from previous research studies are presented in Table 5-1. The number of positions in each essential functional area are given in a ratio of the median number of positions per one thousand pupil enrollment. It is shown that approximately 1.7 positions per one thousand were normative.

The numerical adequacies in the various functional areas among the central-office staffs of small-size school systems were determined in the field study. According to the data collected in the study, there was a mean of 6.61 positions per system studied.[8] There were 2.63 central-office positions per one thousand pupils in the systems studied. These positions were deployed in the functional areas as shown in Table 5-2.[9]

The function of instructional administration was found to be the area most stressed among the central-office staffs studied. Approximately one-third of all central-office persons were committed to performing the function of instructional

administration. Approximately one-fourth of the positions were committed to the areas of pupil personnel and general administration.

Table 5-1

SYNTHESIS OF CENTRAL-OFFICE STAFF ADEQUACIES FOR SMALL-SIZE SYSTEMS BASED ON THE REVIEW OF THE LITERATURE

Area	Median number of positions	Median number of positions per one thousand membership
Instructional administration	2.50	.714
Business administration	1.00	.286
Staff personnel administration	.50	.143
Pupil personnel administration	.50	.143
Educational research administration	.00	.000
General administration	1.50	.429
School-community relations administration	.00	.000
Median number of positions and adequacies	6.00	1.715

These figures were based on a median of 6 central-office administrators in a school system of three thousand five-hundred pupils.

There were fewer central-office administrators committed to performing the functions of business administration and staff-personnel administration than was the case in instructional administration. Slightly more than one-half position per system was assigned the function of business administration. One-quarter position was allocated to the function of staff personnel administration. These functions ranked fourth and fifth, respectively, of the five most emphasized administrative functions.

The functions of research administration and school-community relations administration were nearly non-existent in the systems studied. Of the thirty systems studied, one had a full-time researcher and another system had a part-time director of school-community relations. These positions had little effect on the mean number of positions calculated for the thirty systems studied.

Although it was difficult to compare the normative staffing practices found in the small systems studied with the national data synthesized into the statistics shown in Table 5-1, there appeared to be some similarities in the statistics of the two tables. There was less than one position difference between the mean of 2.63 central-office staff per thousand students among the systems studied and the mean of

1.72 as synthesized from the review of the literature. The primary difference in the statistics shown in the two tables appears to be in the percentage of persons performing the pupil-personnel administration function. The synthesized data presented in Table 5-1 was based on records prior to federal and state mandates in the area of special education.

Table 5-2

CENTRAL-OFFICE STAFF ADEQUACIES
OF THE SMALL-SIZE SYSTEMS STUDIED

Area	Mean number of positions	Range in number of positions per one thousand membership	Mean number of positions per one thousand membership
Instructional administration	2.15	.26 - 1.80	.88
Business administration	.64	.09 - .58	.28
Staff-personnel administration	.38	.06 - .64	.21
Pupil-personnel administration	1.66	.00 - 1.44	.64
Educational research administration	.03	.00 - .03	.008
General administration	1.73	.10 - 1.47	.61
School-community relations administration	.02	.00 - .50	.003
Range and means of samples	6.61	.51 - 6.46	2.631

STAFFING RATIOS FOR CENTRAL-OFFICE STAFFS OF MEDIUM-SIZE SCHOOL SYSTEMS

Extensive research relative to both prescriptive and descriptive staffing ratios for central-office staffs of medium-size school systems was reviewed prior to the field study. Based on the review of the literature, it was determined that there was a need for a minimum of nine to fourteen central-office administrators for the "typical" school system of six to nine thousand pupils.[10] It further was concluded that there was a need for a minimum range of fifteen to eighteen central-office administrators in systems having betwene nine and twelve thousand students.[11] Each of the previously-mentioned ranges was in addition to subject-matter and pupil-personnel specialists.[12]

Among the minimum number of positions mentioned for the school system having between six and nine thousand pupils were five instructional administrators. These persons were the following: assistant superintendent for instruction, coordinator of elementary schools, coordinator of secondary schools, and coordinator of federal programs. No specific number of either instructional supervisors or pupil-personnel specialists were suggested from the review of the literature.[13]

Three persons, including an assistant superintendent for finance, were thought to be necessary to perform the function of business administration.[14] Only one person was considered needed to perform the functions in each of the areas of staff-personnel, pupil-personnel, research, and general administration.

From the literature review, it was concluded that more staff members were necessary for school systems having between nine and twelve thousand pupils than were essential for systems having from six to nine thousand students. The instructional function of the larger systems was allotted seven positions, in addition to instructional supervisors and pupil personnel specialists. Five administrative positions were allocated to the business function. Only one administrator was assigned to each of the areas of staff-personnel, pupil-personnel, research, and school-community relations administration. The function of general administration was the responsibility of the superintendent.[15] Each of these statistics is shown in Table 5-3.

During the field study, it was decided that subject-matter supervisors would be counted as instructional administrators because they were responsible for coordinating programs for entire systems and worked primarily with professional personnel rather than with students. It further was decided not to count pupil-personnel specialists such as psychologists, social workers, and speech therapists because of the nature of their work in dealing primarily with students.

It was found that a mean number of 2.108 central-office staff members per one thousand students served the school systems studied.[16] These positions were deployed within the functional areas as shown in Table 5-4.

Table 5-3

SYNTHESIS OF CENTRAL-OFFICE STAFF ADEQUACIES FOR MEDIUM-SIZE SYSTEMS BASED ON THE REVIEW OF THE LITERATURE

Area	Median number of positions	Mean number of positions per one thousand membership
Instructional administration[a]	6	.667
Business administration	4	.444
Staff-personnel administration	1	.111
Pupil-personnel administration[b]	1	.111
Educational research administration	1	.111
General administration	1	.111
School-community relations administration	1	.111
Median number of positions and adequacies[c]	15	1.667

[a]These figures do not include subject-matter specialists.
[b]These figures do not include pupil personnel specialists who work primarily with children rather than with professional personnel.
[c]These figures do not include either subject-matter specialists or pupil personnel specialists who work primarily with children rather than adults.

Instructional administration was stressed in all of the systems studied. Approximately one-half of all central-office staff performed the function of instructional administration. Slightly fewer than one-fourth of the central-office administrators were assigned to various aspects of business administration in the systems studied.

Other areas receiving special attention were pupil-personnel administration and general administration. It is shown in Table 5-4 that approximately two persons per system were employed in both the area of pupil-personnel administration and the area of general administration.

Approximately one person per system was assigned the function of staff-personnel administration. Although not shown in Table 5-4, it was found that at

least one staff-personnel administrator was employed in ten of the twelve systems studied.

Table 5-4

CENTRAL-OFFICE STAFF ADEQUACIES OF THE MEDIUM-SIZE SYSTEMS STUDIED

Area	Mean number of positions	Range in number of positions per one thousand membership	Mean number of positions per one thousand membership
Instructional administration	9.5	.750 - 1.789	1.052
Business administration	3.9	.280 - .606	.427
Staff-personnel administration	.9	.000 - .303	.107
Pupil-personnel administration	1.8	.085 - .455	.208
Educational research administration	.6	.000 - .342	.065
General administration	1.8	.085 - .341	.217
School-community relations administration	.2	.000 - .161	.022
Range and means of sample	18.7	1.750 - 3.333	2.108

The areas of research administration and school-community relations administration were the least empnasized of the seven areas of central-office functions. There was a mean of approximately one-half position per system in the area of research administration and a mean of only .2 school-community relations administrators per system. Research administrators were employed in seven of the twelve systems studied; whereas, school-community relations persons were employed in only two of the systems.

It was impossible to compare normative staffing practices found among the systems studied with the national data which had been synthesized into the statistics shown in Table 5-3. It would appear, however, that the mean of 2.108 central-office staff per thousand students among the systems studied was consistent with the adequacy of 1.667 as synthesized from the literature for medium-size

systems. It may be concluded that the differences between the figures might be attributed to not counting subject-matter specialists in the synthesized data.

STAFFING RATIOS FOR CENTRAL-OFFICE STAFFS OF LARGE-SIZE SCHOOL SYSTEMS

Research relative to both prescriptive and descriptive staffing ratios for central-office staffs of large-size school systems was conducted prior to the field study. Based on the review of the literature, there appeared to be a need for a minimum of eighteen to thirty-seven central-office administrators for the "typical" school system of twelve to twenty-five thousand pupils.[17] It further was concluded that there was a need for a minimum range of thirty-seven to seventy-four central-office administrators in systems having between twenty-five and fifty thousand students.[18] Each of the previously-mentioned ranges was in addition to visiting teachers, pupil-personnel specialists, and other persons who worked directly with students.

From the literature review, it was concluded that more staff members were necessary for school systems having more than twenty-five thousand pupils than were essential for systems having from twelve to twenty-five thousand students. The instructional functions of the larger systems required additional positions. Several additional administrative positions also appeared to be needed in the business functions of the larger systems. The pupil-personnel and staff-personnel functions required increased numbers of central-office employees in the larger systems. The numbers of persons employed to administer the functions of research, school-community relations, and general administration also appeared to increase slightly in the larger systems. The synthesized statistics are shown in Table 5-5.

During the field study, it was decided that subject-matter supervisors would be counted as instructional administration staff members because they were responsible for coordinating programs for entire systems and worked primarily with professional personnel rather than with students. It further was decided not to count pupil-personnel specialists such as psychologists, nurses, social workers, and speech therapists because of the nature of their work in dealing primarily with students.

It was found that a mean number of 1.850 central-office staff per one thousand students served the school systems studied.[19] These positions were deployed within the functional areas shown in Table 5-6.

Instructional administration was stressed in all of the systems studied. Approximately one-half of all central-office staff performed the instructional administration function. Slightly fewer than one-fourth of the central-office administrators were assigned to various aspects of business administration in the systems studied.

Table 5-5

SYNTHESIS OF CENTRAL-OFFICE STAFF ADEQUACIES FOR LARGE-SIZE SYSTEMS HAVING APPROXIMATELY TWENTY-FIVE THOUSAND PUPILS BASED ON THE REVIEW OF THE LITERATURE

Area	Median number of positions	Median number of positions per one thousand membership
Instructional administration	19	.74
Business administration	6	.25
Staff-personnel administration	2	.09
Pupil-personnel administration	3	.13
Educational research administration	2	.08
General administration	3	.13
School-community relations administration	2	.06
Median number of positions and adequacies	37	1.48

Other areas receiving special attention were pupil-personnel administration and staff-personnel administration. It is shown in Table 5-6 that approximately five persons per system were employed in both the area of pupil-personnel administration and staff-personnel administration.

Approximately three persons per system were assigned the function of general administration. The areas of research administration and school-community relations administration were the least emphasized of the seven areas of central-office functions. There was a mean of approximately two positions per system in the area of research administration and a mean of slightly less than one school-community relations administrator per system. Research administrators were employed in thirteen of the systems studied.

It was impossible to compare normative staffing practices found among the systems studied with the national data which had been synthesized into the statistics shown in Table 5-5. It would appear, however, that the mean of 1.850 central-office staff per one thousand students among the systems studied was

consistent with the adequacy of 1.480 as synthesized from the literature from large-size systems. It could be concluded that the differences between the figures might be attributed to not counting subject-matter specialists or other technicians in the snythesized data. The increased employment of technicians in central-office staffs was noted in the field study. Generally, these specialists or technicians had responsibilities which were normally delegated to administrators, and close scrutiny was required to differentiate technicians from administrators.

Table 5-6

CENTRAL-OFFICE STAFF ADEQUACIES OF LARGE-SIZE SYSTEMS STUDIED

Area	Mean number of positions	Range in number of positions per one thousand membership	Mean number of positions per one thousand membership
Instructional administration	32.441	.597 - 1.710	.934
Business administration	15.941	.166 - .754	.459
Staff-personnel administration	4.471	.065 - .292	.129
Pupil-personnel administration	5.294	.025 - .365	.152
Educational research administration	2.059	.000 - .148	.059
General administration	3.235	.042 - .224	.093
School-community relations administration	.824	.000 - .073	.024
Range and means of sample	64.265	.895 - 3.691	1.850

SUMMARY

Although both prescriptive and descriptive central-office staffing ratios were available in administrative literature, these standards were found to be inadequate because of the apparent lack of consistency in the terminology utilized in the preparation of the studies. It was believed that studies of a cross-section of systems of varied sizes in which standard terminology was used would provide insight into normative central-office staffing adequacies. A summary of these adequacies as determined from the field studies is shown below in Table 5-7.

Table 5-7

CENTRAL-OFFICE STAFF ADEQUACIES OF THE SYSTEMS STUDIED

Area	Mean number of positions per one thousand pupil-membership		
	Small-size systems	Medium-size systems	Large-size systems
Instructional administration	.880	1.052	.934
Business administration	.280	.427	.459
Staff personnel administration	.210	.107	.129
Pupil personnel administration	.640	.208	.152
Educational research administration	.008	.065	.059
General administration	.610	.217	.093
School-Community relations administration	.003	.022	.024
Totals of Means	2.631	2.108	1.850

It is apparent from an examination of Table 5-7 that more persons were assigned to the function, instructional administration, than were assigned to any other area. Approximately one person per one thousand pupils was assigned this function in each of the types of systems studied.

The other function which appeared to be stressed in most systems was that of business administration. As would be expected, the function of general administration was allocated more positions per one thousand pupils in small systems than in either medium-size or large-size systems. Small-size systems tended to utilize more general administrators than did the large-size systems with the large-size systems having fewer generalists than did the small-size systems.

The fact that there were certain functions that had to be performed at a central-office regardless of the sizes of the systems was verified through the assignment of persons to perform each of the functions in each of the systems as shown in Table 5-7. It further was apparent that the size of the system was in inverse proportion to the number of positions per one thousand pupils. That is, the larger the system, the fewer positions allocated per one thousand pupils.

FOOTNOTES

1. George E. Nolley, "The Organizations, Functions, and Adequacies of Central-Office Staffs of Medium-Size School Systems", (Unpublished Doctor's dissertation, University of Virginia, 1975), p. 286.

2. Ibid., pp. 80-107.

3. Educational Research Service, Inc.: Student-Staff Ratios, 1972-73 (Arlington, Virginia: Educational Research Service, Inc., 1974), p. 5.

4. Ibid.

5. Nolley, op. cit., p. 14.

6. Ibid., pp. 14-15.

7. John C. Capehart, "The Organization, Functions, and Adequacies of Central-Office Staffs of Small-Size School Systems," (Unpublished Doctor's dissertation, University of Virginia, 1977), pp. 113-138.

8. Ibid., p. 474.

9. Ibid., p. 475.

10. Nolley, op. cit., pp. 80-107.

11. Ibid.

12. Ibid.

13. Ibid.

14. Ibid.

15. Ibid.

16. Ibid., p. 266.

17. Fred G. Benham, "The Organizations, Functions, and Adequacies of Central-Office Staffs of Large-Size School Systems" (Unpublished Doctor's dissertation, University of Virginia, 1977), pp. 133-157.

18. Ibid., p. 162.

19. Ibid., p. 497.

CHAPTER VI

SYSTEM CHARACTERISTICS AND USE OF PRINCIPLES OF ORGANIZATION

Capehart[1] examined the central-office organizational structures of thirty small-size school systems; Nolley[2] examined the central-office organizational structures of twelve medium-size school systems; and Benham[3] examined the central-office organizational structures of seventeen large-size school systems. There was variance in the characteristics of the school systems studied, as well as differences in functions performed by central-office administrators of the different systems. The observed use of organizational principles was not consistent among the systems studied.

In the first three sections of this chapter, the system characteristics pertinent to small-size, medium-size, and large-size systems are described. In the fourth section of this chapter, the relationships of certain system characteristics to central-office adequacies are discussed. The final section of the chapter is a summary.

SYSTEM CHARACTERISTICS OF THE SMALL-SIZE SCHOOL DISTRICTS STUDIED

The eight principles of organization which were previously identified and discussed in Chapter II were used as a group to form one of the categories of the system characteristics. The seven central-office functions previously identified and discussed in Chapter III were used as a group to form the second of the categoires of system characteristics. Five other system characteristics were empirical categories, and data for these categories were obtained from official records of the thirty small-size school systems studied. The seven categories of system characteristics were as follow:

1. Number of principles of organization utilized in the central-office staff design of each school system;
2. Number of functions performed by central-office administrators;
3. Average daily membership of pupils for each school system;
4. Number of teachers in each school system;
5. Number of schools within each school system;
6. Mean wealth per pupil based on 1973 true values of real estate and public service corporations of each school system; and
7. Mean annual cost per pupil in average daily membership for each school system.

The data related to characteristics of the small-size systems studied are shown in Table 6-1.[4]

Table 6-1

CHARACTERISTICS OF THE SMALL-SIZE SYSTEMS STUDIED

Characteristic	Range	Mean
Number of Principles of Organization utilized	3 - 8	6.30
Number of functions performed	4 - 6	4.93
Average pupil membership	743 - 5,643	2,879.50
Number of teachers per system	44 - 319	168.97
Number of schools per system	2 - 12	5.93
Mean tax base per pupil	$34,658 - $95,958	$61,708.37
Annual per pupil expenditure	$790 - $1,105	$927.03

With reference to the number of organizational principles utilized in the school systems studied, it is shown in Table 6-1 that there was a range of three to eight principles of organization utilized in the various systems, with a mean of 6.30 for the thirty systems studied. Not shown in Table 6-1 is the fact that in eight of the thirty systems studied, all eight of the recognized principles of organization were used.

A range of four to six administrative functions performed by the central-office staffs of the selected school systems studied was indicated in the data. The mean number of functions performed was 4.93 per school system. It was discovered further that in only two systems were six of the seven functions recognized in the review of the literature performed. No school system had central-office personnel responsible for performing all seven central-office functions.

With respect to pupil membership, there was a range from 743 to 5,653 among the systems studied. The mean pupil membership was approximately 2,880.

According to the information shown in Table 6-1, there was a range of approximately 44 to 319 teachers among the systems studied. The mean number of teachers was approximately 169.

It was determined from the information collected that there was a range from two to twelve individual schools in the systems studied. The mean number of schools in the systems studied was approximately six.

In analyzing the characteristic of system tax base, it was found that there was a range from approximately thirty-five thousand to ninety-six thousand dollars per pupil. The mean system tax base was approximately sixty-two thousand dollars per pupil.

Finally, it is shown in Table 6-1 that the range of annual per-pupil expenditure was approximately $790 to $1,105 in the system studied. The mean per-pupil expenditure in the systems studied was $927.

SYSTEM CHARACTERISTICS OF MEDIUM-SIZE SCHOOL DISTRICTS STUDIED

The eight principles of organization which were previously identified and discussed in Chapter II were used as a group to form one of the categories of the system characteristics. The seven central-office functions previously identified and discussed in Chapter III were used as a group to form the second of the categories of system characteristics. Five other system characteristics were empirical categories, and data for these categories were obtained from official records of the twelve medium-size school systems studied. The seven categories of system characteristics were as follow:

1. Number of principles of organization utilized in the central-office staff design of each school system;
2. Number of functions performed by central-office administrators;
3. Average daily membership of pupils for each school system;
4. Number of teachers in each school system;
5. Number of schools within each school system;
6. Mean wealth per pupil based on 1973 true values of real estate and public service corporation of each school system; and
7. Mean annual cost per pupil in average daily membership for each school system.

The data related to characteristics of the medium-size systems studied are shown in Table 6-2.[5]

With reference to the characteristic, the number of principles of organization utilized, it was determined that from three to eight principles of organization were utilized in the various school systems. Although not shown in Table 6-2, each of the eight principles was utilized by the central-office staffs of fifty percent of the systems studied.

As is shown in Table 6-2, the number of functions performed by central-office administrators in the medium-size systems was in a range of four to seven. The mean for the twelve systems studied was 5.42, and in only two systems were all seven functions performed.

Table 6-2

CHARACTERISTICS OF THE MEDIUM-SIZE SYSTEMS STUDIED

Characteristic	Range	Mean
Number of Principles of Organization	3 - 8	6.67
Number of functions performed	4 - 7	5.42
Average pupil membership	6,607 - 11,962	9,145.58
Number of teachers per system	353 -	515.42
Number of schools per system	9 - 24	17.00
Mean tax base per pupil	$22,107 - $54,472	$33,959.33
Annual per pupil expenditure	$ 752 - $1,113	$870.92

A range from approximately six thousand six hundred to twelve thousand pupils in average daily membership was found in the twelve systems selected for the study. The mean number of pupils in the systems studied was approximately 9,100. There were more than nine thousand pupils in fifty percent of the systems studied.

With respect to the number of teachers, there was a range from approximately three hundred fifty to seven hundred teachers among the systems studied. The mean number of teachers was approximately five hundred fifteen.

In analyzing the system characteristic, number of individual schools, it was found that there was a range from nine to twenty-four schools in the systems studied. The mean number of schools in the systems studied was seventeen.

Concerning the system characteristic, tax base per pupil, it was found that there was a wide range from approximately twenty-two thousand to fifty-four thousand dollars per pupil. Although there was a mean tax base of approximately thirty-five thousand dollars per pupil, eight of the twelve systems studied were located in political subdivisions having fewer than thirty-two thousand dollars true tax value per pupil. The other four systems studied were located in political subdivisions having more than forty-five thousand dollars true tax value per pupil.

Concerning the system characteristic, annual per pupil expenditure it was determined that there was a range from approximately $750 to $1,100 spent per pupil in average daily membership. Whereas the mean cost per pupil was approximately $871, less than the mean cost per pupil was spent in eight of the twelve systems studied. More than $920 per pupil was spent in the other four systems studied.

SYSTEM CHARACTERISTICS OF THE LARGE-SIZE SCHOOL SYSTEMS STUDIED

The eight principles of organization which were previously identified and discussed in Chapter II were used as a group to form one of the categories of the system characteristics. The seven central-office functions previously identified and discussed in Chapter III were used as a group to form the second of the categories of system characteristics. The other five characteristics were empirical categories, and data for these categories were obtained from official records of the seventeen large-size school systems studied. The seven categories of system characteristics were as follow:

1. Number of principles of organization utilized in the central-office staff design of each school system;
2. Number of functions performed by central-office administrators;
3. Average daily membership of pupils for each school system;
4. Number of teachers in each school system;
5. Number of schools within each school system;
6. Mean wealth per pupil based on 1973 true values of real estate and public service corporations of each school system; and
7. Mean annual cost per pupil in average daily membership for each school system.

The data related to characteristics of the large-size school systems studied are shown in Table 6-3.[6]

With reference to the characteristic, the number of principles of organization utilized, it was determined that from five to eight principles were utilized in the various school systems. Although not shown in Table 3, each of the eight principles was utilized by the central-office staffs of seven of the seventeen school systems studied. The mean number of principles utilized was 6.88.

As is shown in Table 6-3, the number of functions performed by central-office administrators in the systems studied was in a range from five to seven. The mean for the seventeen systems was approximately 6.41. In eleven of the seventeen systems, all functions were performed.

Table 6-3

CHARACTERISTICS OF THE LARGE-SIZE SCHOOL SYSTEMS STUDIED

Characteristic	Range	Mean
Number of Principles of Organization utilized	5 - 8	6.88
Number of functions performed	5 - 7	6.41
Average pupil membership	13,415 - 137,100	34,735.00
Number of teachers per system	644 - 6,868	1,816.88
Number of schools per system	22 - 167	46.59
Mean tax base per pupil	$30,147 - $166,539	$53,931.53
Annual per pupil expenditure	$797 - $1,850	$1,113.29

A range from approximately 13,400 to 137,100 pupils was found in the school systems which were studied. The mean number of pupils in the systems studied was approximately 34,735.

As is shown in Table 6-3, there was a range of approximately 644 to 6,868 teachers among the systems studied. The mean number of teachers was approximately 1,817.

There was a range from 22 to 167 schools in the seventeen systems studied. The mean number of schools in the systems studied was approximately 47.

Concerning the characteristic, mean tax base per pupil, there was a range from approximately thirty thousand to one hundred sixty-six thousand dollars per pupil. The mean tax base was approximately fifty-four thousand dollars per pupil.

According to the information shown in Table 6-3, the range of annual per pupil expenditure was from approximately $797 to approximately $1,850 in the systems studied. The mean annual per pupil expenditure was approximately $1,113.

RELATIONSHIP OF SYSTEM CHARACTERISTICS TO STAFF ADEQUACIES

To determine whether or not certain system characteristics had a significant relationship with central-office staff adequacy, it was necessary to conduct tests for statistical significance. To determine statistical significance, seven null hypotheses were formulated and tested at the .05 level of confidence.

Capehart[7] used multiple linear regression to test the hypotheses related to small-size systems. Nolley[8] and Benham[9] used correlation coefficients to test the hypotheses related to medium-size and large-size systems, respectively.

Capehart,[10] Nolley,[11] and Benham[12] used essentially the same null hypotheses. The seven system characteristics were used as the independent or predictor variables and staff adequacy was used as the dependent variable. The seven null hypotheses used by all three investigators were essentially stated as follow:

Hypothesis 1: There is no statisitcally significant relationship between the adequacies of central-office staffs of the school systems studied and the number of principles of organization utilized.

Hypothesis 2: There is no statistically significant relationship between the adequacies of central-office staffs of the school systems studied and the number of functions performed by central-office administrators.

Hypothesis 3: There is no statistically significant relationship between the adequacies of central-office staffs of the school systems studied and the pupil memberships.

Hypothesis 4: There is no statistically significant relationship between the adequacies of central-office staffs of the school systems studied and the numbers of teachers.

Hypothesis 5: There is no statistically significant relationship between the adequacies of central-office staffs of the school systems studied and the numbers of schools.

Hypothesis 6: There is no statistically significant relationship between the adequacies of central-office staffs of the school systems studied and the tax bases of the systems.

Hypothesis 7: There is no statistically significant relationship between the adequacies of central-office staffs of the school systems studied and the annual per pupil expenditures.

The results of the tests of the hypotheses were not consistent for all three classifications of school systems. The results of tests for small-size systems differed from the tests related to medium-size and large-size systems.

Relationships of Characteristics in Small-Size Systems

The seven hypotheses previously stated were tested through the use of multiple linear regression. The procedure used keeps all variables in the prediction equation constant except one, hence, isolating the true effect of one independent variable at a time. Statistically significant relationships at the .05 level of confidence were found between the three characteristics (predictor variables) of pupil membership, number of teachers, and number of schools and the central-office staff adequacies of small-size school systems. No statistically significant relationships were found between the four characteristics (predictor variables) of principles of organization utilized, number of functions performed, tax base of systems, and annual per pupil expenditure and the adequacies of central-office staffs of small-size school systems.[13]

Relationships of Characteristics in Medium-Size Systems

The seven hypotheses previously stated were tested through the use of correlation coefficients. Statistically significant relationships at the .05 level of confidence were found between the two characteristics (predictor variables), annual per pupil expenditures and tax bases of the systems and the staff adequacies of the central-office staffs of medium-size school systems. No statistically significant relationships were found between the five characteristics (predictor variables) of principles of organization utilized, number of functions performed, pupil membership, number of teachers, and number of schools and the adequacies of central-office staffs of medium-size school systems.[14]

Relationships of Characteristics in Large-Size Systems

The seven hypotheses previously stated were tested by the use of correlation coefficients. A .05 level of confidence was set for significance.

Statistically significant relationships were found between two system characteristics (independent variables) and central-office staff adequacy (dependent variable); the two system characteristics were annual per pupil expenditure and per pupil tax base. No statistically significant relationships were found between the five system characteristics of number of principles of organization utilized, number of functions performed, average daily pupil membership, number of teachers, and number of schools and the adequacies of central-office staffs of large-size school systems.[15]

SUMMARY

The relationships between the selected school-system characteristics and adequacies of the central-office staffs of the school systems studied were analyzed statistically. Seven null hypotheses were tested at the .05 level of confidence. Relationships between system characteristics and central-office staff adequacies in the small-size systems studied were tested by the use of multiple linear regression. Relationships between system characteristics and staff adequacies in medium-size and large-size systems were tested by the use of coefficients of correlations. Statistically significant relationships at the .05 level of confidence were found between the three characteristics (predictor variables) of pupil membership, number of teachers, and number of schools, and the adequacies of central-office staffs of small-size school systems. No statistically significant relationships were found between the four characteristics (predictor variables) of number of principles of organization utilized, number of functions performed, tax base of systems, and annual per-pupil expenditure and the adequacies of central-office staffs of small-size school systems.

The results of tests involving both medium-size school systems and large-size school systems were similar. Of the seven system characteristics, mean annual expenditure and per pupil tax base were the only characteristics found to have statistically significant relationships with staff adequacy in medium-size and large-size school systems.

From the review of the literature, it was assumed that efficient and effective organizations would likely result if certain identified principles of organization were utilized in structuring the administrative hierarchy. By the utilization of principles of organization, an organization could be formed that would, in effect, allow a minimum number of administrators to supervise personnel who accomplished assigned tasks. This possibility exists but was not proven by tests for significant relationships between number of principles of organization utilized and staff adequacy. Additional research involving principles of organization might produce meaningful results.

The number of different functions performed by central-office administrators was found to have no statistically significant relationship with staff adequacy. Additional research in this area would be necessary if a statistically significant relationship were to be identified.

In small-size systems, each of the three empirical system characteristics, pupil membership, number of teachers, and number of schools, had a significant relationship with adequacy. It appeared that as the size of small school systems increase, it becomes necessary to establish minimal numbers of administrators who have specific responsibilities or who execute specific functions.

Of the seven empirical system characteristics, mean annual per pupil expenditure and per pupil tax base were the only ones found to have statistically significant relationships with staff adequacy in medium-size and large-size systems. Apparently, school systems with financial resources are willing to have relatively large central-office staffs. It did not appear that central-office staffs in medium-size and large-size systems were increased in size in a manner which was disproportionate to pupil enrollments.

FOOTNOTES

1. John C. Capehart, "The Organization, Functions, and Adequacies of Central-Office Staffs of Small-Size School Systems" (Unpublished Doctor's dissertation, University of Virginia, 1977), pp. 151-470.

2. George E. Nolley, "The Organization, Functions, and Adequacies of Central-Office Staffs of Medium-Size School Systems" (Unpublished Doctor's dissertation, University of Virginia, 1975), pp. 118-261.

3. Fred G. Benham, "The Organization, Functions, and Adequacies of Central-Office Staffs of Large-Size School Systems" (Unpublished Doctor's dissertation, University of Virginia, 1977), pp. 180-493.

4. Capehart, pp. 471-473.

5. Nolley, pp. 262-265.

6. Benham, pp. 494-496.

7. Capehart, p. 488.

8. Nolley, p. 275.

9. Benham, p. 499.

10. Capehart, pp. 510-512.

11. Nolley, pp. 269-271.

12. Benham, pp. 500-505.

13. Capehart, pp. 510-512.

14. Nolley, pp. 269-271.

15. Benham, pp. 500-505.

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